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BUREAU OF EMPLOYMENT SECURITY
Division of Economic Analysis and Research

MAINE OCCUPATIONAL STAFFING PATTERNS

For

Wholesale and Retail Trade

and

Selected Transportation, Communications, Electric, Gas, and Sanitary Services

Data for Second Quarter 1982

Labor Market Information Services

MAINE OCCUPATIONAL STAFFING PATTERNS
FOR
WHOLESALE AND RETAIL TRADE
AND
SELECTED TRANSPORTATION, COMMUNICATIONS, ELECTRIC, GAS, AND SANITARY SERVICES

SECOND QUARTER 1982

This labor market information is developed through a cooperative program with the U.S. Bureau of Labor Statistics entitled the Occupational Employment Statistics (OES) Program

DIVISION OF ECONOMIC ANALYSIS AND RESEARCH
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PREFACE

We wish to express our thanks to all the employers who supplied the necessary occupational employment data on which the estimates presented herein are based. This publication would not have been possible without their cooperation.

Raynold A. Fongemie, Director
DIVISION OF ECONOMIC ANALYSIS AND RESEARCH

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LOCAL AND SUBURBAN TRANSIT AND INTERURBAN
HIGHWAY PASSENGER TRANSPORTATION
SIC 41
June 1982

This major industry group includes establishments primarily engaged in furnishing local and suburban passenger transportation, such as those providing passenger transportation within a single municipality, contiguous municipalities, or a municipality and its suburban areas by bus, rail, or subway, either separately or in combination. Also included are establishments engaged in furnishing transportation to local scenic features.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	1,080	100.00	na	na
Managers and Officers	60	5.56	6	56
Professional Occupations	20	1.85	na	na
Accountant and/or Auditor	10	.93	21	12
All Other Professional Workers	10	.93	na	na
Technical Occupations	230	21.30	na	na
Emergency Medical Technician	230	21.30	5	28
Service Occupations	10	.93	na	na
Maintenance and Production Occupations	630	58.33	na	na
Supervisor, Nonworking	10	.93	13	14
Mechanic, Automotive	30	2.78	9	26
Body Repairer, Automotive	10	.93	25	9
All Other Mechanics and Repairers	10	.93	16	5
Bus Driver	80	7.41	4	16
Cleaner, Vehicle	10	.93	10	14
Taxi Driver	120	11.11	11	16
Bus Driver, School	310	28.70	4	35
Ambulance Driver and/or Ambulance Attendant	40	3.70	22	16
All Other Skilled Craft and Kindred Workers	10	.93	44	5
Clerical Occupations	130	12.04	na	na
General Clerk, Office	10	.93	19	14
Information Clerk	10	.93	13	9
Payroll and/or Timekeeping Clerk	10	.93	22	12
Secretary	10	.93	17	14
All Other Office Clerical Workers	20	1.85	na	na
Dispatcher, Vehicle, Service or Work	60	5.56	17	30
Dispatcher, Police, Fire and Ambulance	10	.93	28	9

MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING
SIC 42
May 1982

This major industry group includes establishments furnishing local or long-distance trucking, transfer services, or storage of farm products, furniture, and other household or commercial goods. The operation of terminal facilities for handling freight, with or without maintenance facilities, is also included.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	4,530	100.00	na	na
Managers and Officers	450	9.93	7	80
Professional Occupations	30	.66	na	na
Service Occupations	70	1.55	na	na
Janitor, Porter, or Cleaner	30	.66	34	14
All Other Service Occupations	40	.88	na	na
Maintenance and Production Occupations	3,140	69.32	na	na
Supervisor, Nonworking	40	.88	20	14
Mechanic, Automotive	40	.88	29	13
Diesel Mechanic	150	3.31	17	32
Truck Driver, Heavy	250	5.52	31	15
Truck Driver, Light	380	8.39	20	16
Tractor-Trailer Truck Driver	1,460	32.23	8	68
Delivery and/or Route Worker	390	8.61	16	15
Maintenance Repairer, General Utility	60	1.32	27	16
Helper, Trades	20	.44	30	6
Truck Driver Helper	150	3.31	28	15
All Other Skilled Craft and Kindred Workers	20	.44	na	na
All Other Operatives and Semiskilled Workers	30	.66	na	na
All Other Laborers and Unskilled Workers	150	3.31	na	na
Clerical Occupations	760	16.78	na	na
Computer Operator	10	.22	23	5
Accounting Clerk	30	.66	29	13
Bookkeeper, Hand	50	1.10	27	14
General Clerk, Office	150	3.31	13	37
Secretary	40	.88	24	18
All Other Office Clerical Workers	40	.88	na	na
Shipping Packer	150	3.31	29	10
Shipping and/or Receiving Clerk	180	3.97	30	13
Stock Clerk, Stockroom, Warehouse, or Storage Yard	30	.66	30	10
Dispatcher, Vehicle, Service or Work	40	.88	19	20
Rate Clerk, Freight	30	.66	26	12
All Other Plant Clerical Workers	10	.22	na	na

SIC 42 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Sales Occupations	80	1.77	na	na
Crating-and-Moving Estimator	30	.66	31	10
Traffic Agent	30	.66	29	15
All Other Sales Workers	20	.44	na	na

WATER TRANSPORTATION
SIC 44
April 1982

This major industry group includes establishments engaged in freight and passenger transportation on the open seas or inland waters; and establishments furnishing such incidental services as lighterage, towing, and canal operation. This major group also includes excursion boats; sightseeing boats, and water taxis.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	860	100.00	na	na
Managers and Officers	100	11.63	na	na
Captain, Water Vessel	30	3.49	0	19
All Other Managers and Officers	70	8.14	6	48
Professional Occupations	10	1.16	na	na
Purchasing Agent and/or Buyer	10	1.16	20	7
Service Occupations	40	4.65	na	na
Guard or Doorkeeper	10	1.16	22	12
Food Service Worker	20	2.33	0	10
All Other Service Workers	10	1.16	na	na
Maintenance and Production Occupations	600	69.77	na	na
Supervisor, Nonworking	20	2.33	12	16
Diesel Mechanic	20	2.33	18	16
Marine Mechanic and/or Repairer	50	5.81	10	33
All Other Mechanics and Repairers	10	1.16	na	na
Carpenter	40	4.65	17	26
Crane, Derrick, and/or Hoist Operator	10	1.16	30	7
Electrician	10	1.16	17	10
Maintenance Repairer, General Utility	40	4.65	15	22
Helper, Trades	10	1.16	23	5
Marine Service Station Attendant	10	1.16	18	10
Painter, Maintenance	60	6.98	18	26
Welder and/or Flamecutter	10	1.16	24	9
Boat Patcher, Plastic	20	2.33	19	14
Shipwright	40	4.65	24	12
Ordinary Seaman	20	2.33	0	19
Ship Engineer	10	1.16	0	7
Motorboat Operator	10	1.16	15	7
All Other Skilled Craft and Kindred Workers	30	3.49	na	na
All Other Operatives and Semiskilled Workers	20	2.33	na	na
All Other Laborers and Unskilled Workers	160	18.60	na	na
Clerical Occupations	90	10.47	na	na
Bookkeeper, Hand	20	2.33	12	22
Cashier	10	1.16	24	5
General Clerk, Office	30	3.49	9	28

SIC 44 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (continued)				
Payroll and/or Timekeeping Clerk	10	1.16	19	9
Secretary	10	1.16	11	17
All Other Office Clerical Workers	10	1.16	na	na
Sales Occupations	20	2.33	na	na
Sales Representative, Sales Agent, and/or Sales Associate	10	1.16	14	10
Sales Clerk	10	1.16	17	14

TRANSPORTATION BY AIR
SIC 45
June 1982

This major industry group includes establishments engaged in furnishing domestic and foreign transportation by air and also those operating airports and flying fields and furnishing terminal services.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	600	100.00	na	na
Managers and Officers	30	5.00	18	79
Professional Occupations	30	5.00	na	na
Teacher and/or Instructor, Vocational Education or Training	20	3.33	43	21
All Other Professional Workers	10	1.67	na	na
Technical Occupations	120	20.00	na	na
Airplane Pilot	100	16.67	9	43
All Other Technicians	20	3.33	na	na
Service Occupations	10	1.67	na	na
Flight Attendant	10	1.67	9	7
Maintenance Occupations	210	35.00	na	na
Mechanic, Aircraft	100	16.67	12	57
All Other Mechanics and Repairers	10	1.67	na	na
Line-Service Attendant	80	13.33	28	57
All Other Skilled Craft and Kindred Workers	10	1.67	na	na
All Other Laborers and Unskilled Workers	10	1.67	na	na
Clerical Occupations	200	33.33	na	na
Secretary	10	1.67	22	29
Ticket Agent	130	21.67	11	29
All Other Office Clerical Workers	40	6.67	na	na
All Plant Clerical Workers	20	3.33	na	na

COMMUNICATION
SIC 48
May 1982

This major industry group includes establishments furnishing point-to-point communication services, whether by wire or radio, and whether intended to be received aurally or visually; and radio and television broadcasting. Services for the exchange or recording of messages are also included.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	5,010	100.00	na	na
Managers and Officers	500	9.98	7	100
Professional Occupations	560	11.18	na	na
Electrical and/or Electronic Engineer	70	1.40	18	59
Photographer	20	.40	48	9
Television Camera Operator	40	.80	47	12
Announcer, Radio and Television	290	5.79	12	53
Broadcast News Analyst	30	.60	22	26
Writer and/or Editor	40	.80	18	32
Public-Relations Practitioner	10	.20	42	9
Reporter or Correspondent	50	1.00	33	12
All Other Professional Workers	10	.20	na	na
Technical Occupations	160	3.19	na	na
Service Occupations	50	1.00	na	na
Janitor, Porter, or Cleaner	50	1.00	13	32
Maintenance Occupations	1,690	33.73	na	na
Supervisor, Nonworking	340	6.79	4	15
Cable Splicer	190	3.79	1	12
Central Office Repairer	220	4.39	6	18
Installer Repairer and/or Section Maintainer	210	4.19	11	21
Line Installer/Repairer	150	2.99	23	21
All Other Skilled Craft and Kindred Workers	580	11.58	na	na
Clerical Occupations	1,850	36.93	na	na
Bookkeeping and/or Billing Machine Operator	10	.20	39	9
Accounting Clerk	140	2.79	15	24
Bookkeeper, Hand	30	.60	48	21
General Clerk, Office	440	8.78	7	29
Secretary	70	1.40	35	38
Switchboard Operator/Receptionist	10	.20	36	12
Traffic Clerk	40	.80	12	32
Typist	10	.20	44	12
Central Office Operator	390	7.78	3	9
Customer Service Representative	220	4.39	3	12

SIC 48 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (continued)				
All Other Office Clerical Workers.....	300	5.99	na	na
Production Clerk and/or Coordinator.....	140	2.79	6	9
All Other Plant Clerical Workers.....	50	1.00	na	na
Sales Occupations.....	200	3.99	na	na
Sales Representative, Sales Agent, and/or Sales Associate.....	160	3.19	12	53
All Other Sales Workers.....	40	.80	na	na

ELECTRIC, GAS, AND SANITARY SERVICES
SIC 49
April 1982

This major industry group includes establishments engaged in the generation, transmission, and/or distribution of electricity, gas, or steam. Also included are water and irrigation systems, and sanitary systems engaged in the collection and disposal of garbage, sewage, and other wastes by means of destroying or processing materials.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	3,400	100.00	na	na
Managers and Officers	260	7.65	9	82
Professional Occupations	330	9.71	na	na
Civil Engineer	10	.29	0	14
Electrical and/or Electronic Engineer	50	1.47	6	27
Mechanical Engineer	10	.29	5	14
All Other Engineers	70	2.06	na	na
Systems Analyst, Electronic Data Processing	30	.88	0	14
Purchasing Agent and/or Buyer	10	.29	0	14
Accountant and/or Auditor	60	1.76	11	27
All Other Professional Workers	90	2.65	na	na
Technical Occupations	130	3.82	na	na
Computer Programmer	30	.88	0	14
Drafter	10	.29	0	14
Electrical and/or Electronic Technician	30	.88	0	14
All Other Engineering Technicians	50	1.47	na	na
All Other Technicians	10	.29	na	na
Service Occupations	40	1.18	na	na
Janitor, Porter, or Cleaner	40	1.18	18	36
Maintenance Occupations	1,790	52.65	na	na
Supervisor, Nonworking	120	3.53	8	64
Mechanic, Automotive	60	1.76	27	23
Hydroelectric-Machinery Mechanic, Powerhouse Repairer, and/or Gas Plant Repairer	50	1.47	13	14
All Other Mechanics and Repairers	220	6.47	na	na
Control Room Operator, Steam	40	1.18	3	14
Electrician	10	.29	4	14
Auxiliary Equipment Operator	80	2.35	20	18
Ground Worker, Utilities	80	2.35	10	18
Heavy Equipment Operator	20	.59	0	18
Line Installer/Repairer	410	12.06	2	32
Maintenance Repairer, General Utility	120	3.53	14	36
Welder and/or Flamecutter	10	.29	0	14
Dispatcher, Load	30	.88	0	14
All Other Skilled Craft and Kindred Workers	150	4.41	na	na
All Other Operatives and Semiskilled Workers	220	6.47	na	na
All Other Laborers and Unskilled Workers	170	5.00	27	18

SIC 49 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations	840	24.71	na	na
Clerical Supervisor, Office or Plant	30	.88	8	18
Bookkeeping and/or Billing Machine Operator	20	.59	46	23
Keypunch Operator	20	.59	0	14
Accounting Clerk	100	2.94	9	32
Cashier	10	.29	30	18
Collector	10	.29	7	14
General Clerk, Office	30	.88	30	45
Secretary	60	1.76	16	45
Typist	80	2.35	0	14
Customer Service Representative	100	2.94	0	14
All Other Office Clerical Workers	130	3.82	na	na
Meter Reader, Utilities	90	2.65	7	59
Stock Clerk, Stockroom, Warehouse, or Storage Yard	100	2.94	1	27
All Other Plant Clerical Workers	60	1.76	na	na
Sales Occupations	10	.29	na	na

WHOLESALE TRADE - DURABLE GOODS
SIC 50
June 1982

This major industry group includes establishments primarily engaged in the wholesale distribution of durable goods. Some examples of durable goods are automobiles, furniture, lumber, electrical goods, hardware, and machinery.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	9,180	100.00	na	na
Managers and Officers	900	9.80	na	na
Manager, Merchandise	360	3.92	15	50
Manager, Wholesale	390	4.25	20	52
All Other Managers and Officers	150	1.63	na	na
Professional Occupations	350	3.81	na	na
Electrical and/or Electronic Engineer	20	.22	40	3
All Other Engineers	20	.22	na	na
Buyer, Retail and/or Wholesale Trade	150	1.63	23	25
Accountant and/or Auditor	90	.98	24	23
All Other Professional Workers	70	.76	na	na
Technical Occupations	520	5.66	na	na
Electrical and/or Electronic Technician	510	5.56	26	16
All Other Technical Workers	10	.11	na	na
Service Occupations	40	.44	na	na
Janitor, Porter, or Cleaner	30	.33	38	11
All Other Service Workers	10	.11	na	na
Maintenance and Production Occupations	3,010	32.79	na	na
Supervisor, Nonworking	210	2.29	17	38
Mechanic, Automotive	550	5.99	19	21
Office Machine Servicer and/or Cash Register Servicer	140	1.53	40	5
All Other Mechanics and Repairers	500	5.45	na	na
Truck Driver	290	3.16	17	29
Delivery and/or Route Worker	300	3.27	28	22
Machinist	40	.44	46	4
Maintenance Repairer, General Utility	80	.87	46	11
Order Filler	200	2.18	17	21
All Other Skilled Craft and Kindred Workers	120	1.31	na	na
All Other Operatives and Semiskilled Workers	280	3.05	na	na
All Other Laborers and Unskilled Workers	300	3.27	na	na

SIC 50 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations	2,600	28.32	na	na
Clerical Supervisor, Office or Plant	140	1.53	28	21
Bookkeeping and/or Billing Machine Operator	100	1.09	26	23
Accounting Clerk	160	1.74	20	30
Bookkeeper, Hand	220	2.40	21	35
Cashier	80	.87	39	16
General Clerk, Office	340	3.70	15	42
Order Clerk	250	2.72	24	32
Secretary	230	2.51	19	39
Typist	110	1.20	24	17
All Other Office Clerical Workers	170	1.85	na	na
Shipping Packer	190	2.07	24	31
Shipping and/or Receiving Clerk	180	1.96	16	38
Stock Clerk, Stockroom, Warehouse, or Storage Yard	420	4.58	17	37
All Other Plant Clerical Workers	10	.11	na	na
Sales Occupations	1,760	19.17	na	na
Sales Representative, Sales Agent, and/or Sales Associate	1,470	16.01	8	84
Sales Clerk	280	3.05	32	20
All Other Sales Workers	10	.11	na	na

WHOLESALE TRADE - NONDURABLE GOODS
SIC 51
June 1982

This major industry group includes establishments primarily engaged in the wholesale distribution of nondurable goods. Some examples of nondurable goods are paper products, drugs, apparel, groceries, chemicals, and petroleum.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	10,000	100.00	na	na
Managers and Officers	930	9.3	na	na
Manager, Merchandise	270	2.7	12	45
Manager, Wholesale	400	4.0	14	54
All Other Managers and Officers	260	2.6	na	na
Professional Occupations	320	3.2	na	na
Buyer, Retail and/or Wholesale Trade	160	1.6	15	25
Accountant and/or Auditor	130	1.3	17	27
Personnel and/or Labor Relations Specialist	10	.1	35	2
All Other Professional Workers	20	.2	na	na
Technical Occupations	30	.3	na	na
Electrical and/or Electronic Technician	10	.1	40	2
All Other Technical Workers	20	.2	na	na
Service Occupations	260	2.6	na	na
Janitor, Porter, or Cleaner	70	.7	19	14
Butcher and/or Meat cutter	140	1.4	25	7
All Other Service Workers	50	.5	na	na
Maintenance Occupations	4,270	42.7	na	na
Supervisor, Nonworking	140	1.4	17	26
Mechanic, Automotive	90	.9	24	18
Diesel Mechanic	10	.1	31	2
All Other Mechanics and Repairers	30	.3	na	na
Truck Driver	490	4.9	12	37
Delivery and/or Route Worker	1,480	14.8	12	48
Industrial Truck Operator	250	2.5	23	17
Maintenance Repairer, General Utility	40	.4	31	10
Order Filler	380	3.8	19	22
Production Packager	200	2.0	41	7
All Other Skilled Craft and Kindred Workers	100	1.0	na	na
All Other Operatives and Semiskilled Workers	160	1.6	na	na
All Other Laborers and Unskilled Workers	900	9.0	na	na
Clerical Occupations	2,230	22.3	na	na
Clerical Supervisor, Office or Plant	120	1.2	20	22
Bookkeeping and/or Billing Machine Operator	80	.8	15	17
Computer Operator	70	.7	19	14

SIC 51 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (continued)				
Keypunch Opererator	40	.4	20	7
All Other Office Machine Operators	10	.1	34	2
Accounting Clerk	160	1.6	14	25
Bookkeeper, Hand	190	1.9	15	36
Cashier	120	1.2	29	18
Collector	10	.1	28	3
General Clerk, Office	390	3.9	14	43
Order Clerk	140	1.4	21	15
Payroll and/or Timekeeping Clerk	10	.1	43	3
Secretary	110	1.1	18	26
Switchboard Operator/Receptionist	10	.1	19	6
Typist	50	.5	23	11
All Other Office Clerical Workers	40	.4	na	na
Shipping Packer	260	2.6	25	21
Shipping and/or Receiving Clerk	130	1.3	16	30
Stock Clerk, Stockroom, Warehouse, or Storage Yard	280	2.8	17	23
All Other Plant Clerical Workers	10	.1	na	na
Sales Occupations	1,960	19.6	na	na
Sales Representative, Sales Agent, and/or Sales Associate	1,500	15.0	14	58
Sales Clerk	380	3.8	26	18
All Other Sales Workers	80	.8	na	na

BUILDING MATERIALS, HARDWARE, GARDEN SUPPLY,
AND MOBILE HOME DEALERS
SIC 52
June 1982

This major industry group includes retail establishments primarily engaged in selling lumber and other building materials, paint, glass and wallpaper, hardware, nursery stock, lawn and garden supplies, and mobile homes.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	3,410	100.00	na	na
Managers and Officers	620	18.18	na	na
Manager, Merchandise	130	3.81	17	39
Manager, Store	470	13.78	7	93
All Other Managers and Officers	20	.59	8	6
Professional Occupations	100	2.93	na	na
Buyer, Retail and/or Wholesale Trade	70	2.05	18	27
Accountant and/or Auditor	30	.88	27	14
Technical Occupations	10	.29	na	na
Service Occupations	40	1.17	na	na
Maintenance and Production Occupations	1,160	34.02	na	na
Supervisor, Nonworking	40	1.17	21	14
Mechanics and Repairers	40	1.17	na	na
Truck Driver	200	5.87	15	34
Delivery and/or Route Worker	80	2.35	27	14
Industrial Truck Operator	40	1.17	20	16
Stock Clerk, Sales Floor	160	4.69	23	23
Wood Machinist	100	2.93	28	11
Mobile Home Set-up Operator	30	.88	27	6
All Other Skilled Craft and Kindred Workers	260	7.62	na	na
All Other Operatives and Semiskilled Workers	60	1.76	na	na
All Other Laborers and Unskilled Workers	150	4.40	na	na
Clerical Occupations	750	21.99	na	na
Accounting Clerk	70	2.05	18	26
Bookkeeper, Hand	180	5.28	13	50
Cashier	120	3.52	23	26
General Clerk, Office	130	3.81	15	35
Secretary	50	1.47	27	17
Shipping and/or Receiving Clerk	80	2.35	17	25
Stock Clerk, Stockroom, Warehouse, or Storage Yard	120	3.52	24	23

SIC 52 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Sales Occupations	730	21.41	na	na
Sales Representative, Sales Agent, and/or Sales Associate	320	9.38	15	49
Sales Clerk	410	12.02	14	36

GENERAL MERCHANDISE STORES
SIC 53
June 1982

This major industry group includes retail stores which sell a number of lines of merchandise, such as dry goods, apparel and accessories, furniture and home furnishings, small wares, hardware, and food. The stores included in this group are known as department stores, variety stores, general merchandise stores, general stores, etc.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	8,200	100.00	na	na
Managers and Officers	770	9.39	na	na
Manager, Merchandise	90	1.10	26	22
Manager, Store	500	6.10	13	95
Manager, Automobile Parts Department	10	.12	26	9
All Other Managers and Officers	170	2.07	14	20
Professional Occupations	180	2.20	na	na
Personnel and/or Labor Relations Specialist	10	.12	20	11
All Other Professional Workers	170	2.07	na	na
Service Occupations	450	5.49	na	na
Janitor, Porter, or Cleaner	170	2.07	25	40
Guard or Doorkeeper	50	.61	21	16
All Other Food Service Workers	190	2.32	na	na
Checker, Fitting Room	20	.24	24	9
Store Detective	20	.24	25	9
Maintenance and Production Occupations	810	9.88	na	na
Supervisor, Nonworking	20	.24	19	11
Laundry Machine Mechanic	30	.37	17	11
Mechanic, Maintenance	40	.49	26	7
Television Servicer and Repairer, Radio Repairer, and/or Tape Recorder Repairer	40	.49	17	11
All Other Mechanics and Repairers	50	.61	na	na
Truck Driver	20	.24	17	11
Merchandise Displayer	10	.12	19	9
Alteration Tailor	20	.24	14	13
Stock Clerk, Sales Floor	420	5.12	21	40
All Other Skilled Craft and Kindred Workers	130	1.59	na	na
All Other Operatives and Semiskilled Workers	20	.24	na	na
All Other Laborers and Unskilled Workers	10	.12	na	na
Clerical Occupations	2,590	31.59	na	na
Clerical Supervisor, Office or Plant	60	.73	22	27
Office Machine Operators	20	.24	na	na
Accounting Clerk	80	.98	22	27
Bookkeeper, Hand	70	.85	23	31
Adjustment Clerk	110	1.34	14	27

SIC 53 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (continued)				
Cashier	1,380	16.83	12	76
General Clerk, Office	130	1.59	18	40
Credit Authorizer	20	.24	29	7
Order Clerk	50	.61	35	13
Payroll and/or Timekeeping Clerk	10	.12	39	9
Personnel Clerk	10	.12	44	5
Secretary	30	.37	31	20
Service Clerk	60	.73	15	13
Switchboard Operator	40	.49	13	16
All Other Office Clerical Workers	60	.73	na	na
Shipping Packer	60	.73	26	13
Shipping and/or Receiving Clerk	110	1.34	17	53
Stock Clerk, Stockroom, Warehouse, or Storage Yard	150	1.83	20	35
Marking Clerk	140	1.71	11	31
Sales Occupations	3,400	41.46	na	na
Sales Clerk Supervisor	140	1.71	26	20
Sales Representative, Sales Agent, and/or Sales Associate	490	5.98	19	27
Sales Clerk	2,690	32.80	8	76
All Other Sales Workers	80	.98	na	na

FOOD STORES
SIC 54
June 1982

This major industry group includes retail stores primarily engaged in selling food for home preparation and consumption.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	14,790	100.00	na	na
Managers and Officers	1,500	10.14	na	na
Manager, Merchandise	80	.54	39	5
Manager, Store	1,370	9.26	7	83
All Other Managers and Officers	50	.34	27	2
Professional Occupations	180	1.22	na	na
Buyer, Retail and/or Wholesale Trade	180	1.22	23	13
Service Occupations	1,280	8.65	na	na
Janitor, Porter, or Cleaner	160	1.08	24	28
Baker, Bread and/or Pastry	170	1.15	27	13
Butcher and/or Meat Cutter	580	3.92	16	53
All Other Food Service Workers	360	2.43	na	na
All Other Service Workers	10	.07	na	na
Maintenance and Production Occupations	4,360	29.48	na	na
Delivery and/or Route Worker	60	.41	37	3
Maintenance Repairer, General Utility	10	.07	32	4
Production Packager	130	.88	33	16
Bagger	1,400	9.47	5	44
Stock Clerk, Sales Floor	2,490	16.84	6	64
Baker Production	120	.81	32	21
All Other Skilled Craft and Kindred Workers	20	.14	na	na
All Other Operatives and Semiskilled Workers	70	.47	na	na
All Other Laborers and Unskilled Workers	60	.41	na	na
Clerical Occupations	5,190	35.09	na	na
Clerical Supervisor, Office or Plant	30	0.20	47	3
Accounting Clerk	70	.47	21	6
Bookkeeper, Hand	260	1.76	14	36
Cashier	4,410	29.82	5	78
General Clerk, Office	100	.68	23	17
Service Clerk	90	.61	9	8
All Other Office Clerical Workers	40	.27	na	na
Shipping and/or Receiving Clerk	20	.14	49	3
Stock Clerk, Stockroom, Warehouse, or Storage Yard	170	1.15	34	13
Sales Occupations	2,280	15.42	na	na
Sales Clerk	2,040	13.79	13	50
All Other Sales Workers	240	1.62	na	na

UTOMOBILE DEALERS AND GASOLINE SERVICE STATIONS
SIC 55
June 1982

This major industry group includes retail dealers selling new and used automobiles, boats, recreational and utility trailers, and motorcycles; those selling new automobile parts and accessories; and gasoline service stations.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	8,650	100.00	na	na
Managers and Officers	1,310	15.14	na	na
Manager, Store	580	6.71	10	63
Manager, Automobile Service Department	420	4.86	10	61
Manager, Automotive Parts Department	220	2.54	10	45
All Other Managers and Officers	90	1.04	na	na
Professional Occupations	60	.69	na	na
Accountant and/or Auditor	60	.69	26	13
Service Occupations	330	3.82	na	na
Janitor, Porter, or Cleaner	90	1.04	18	17
All Other Food Service Workers	240	2.77	na	na
Maintenance and Production Occupations	4,440	51.33	na	na
Supervisor, Nonworking	90	1.04	28	14
Mechanic, Automotive	1,830	21.16	6	76
Body Repairer, Automotive	290	3.35	27	27
Diesel Mechanic	70	.81	25	9
All Other Mechanics and Repairers	80	.92	na	na
Truck Driver	50	.58	34	8
Automobile Repair-Service Estimator	10	.12	42	3
Cleaner, Vehicle	190	2.20	10	32
Delivery and/or Route Worker	110	1.27	35	9
Maintenance Repairer, General Utility	70	.81	38	10
Helper, Trades	140	1.62	38	13
Painter, Automotive	60	.69	20	13
Fuel Pump Attendant	1,180	13.64	16	28
Tire Changer	180	2.08	23	10
All Other Skilled Craft and Kindred Workers	50	.58	na	na
All Other Operatives and Semiskilled Workers	20	.23	na	na
All Other Laborers and Unskilled Workers	20	.23	na	na
Clerical Occupations	1,530	17.69	na	na
Accounting Clerk	160	1.85	19	25
Bookkeeper, Hand	310	3.58	14	39
Cashier	250	2.89	36	20
General Clerk, Office	360	4.16	11	42
Secretary	60	.69	36	11
Service Clerk	70	.81	12	17
All Other Office Clerical Workers	30	.35	na	na
Stock Clerk, Stockroom, Warehouse, or Storage Yard	290	3.35	12	37

SIC 55 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Sales Occupations	980	11.33	na	na
Sales Representative, Sales Agent, and/or Sales Associate	830	9.60	7	54
Sales Clerk	140	1.62	40	9
All Other Sales Workers	10	.12	na	na

APPAREL AND ACCESSORY STORES
SIC 56
June 1982

This major industry group includes retail stores primarily engaged in selling new clothing, shoes, hats, underwear, and related articles for personal wear and adornment. Furriers and custom tailors carrying stocks of material are included in this group.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	3,420	100.00	na	na
Managers and Officers	650	19.01	na	na
Manager, Merchandise	60	1.75	21	14
Manager, Store	580	16.96	4	91
All Other Managers and Officers	10	.29	na	na
Professional Occupations	70	2.05	na	na
Buyer, Retail and/or Wholesale Trade	70	2.05	13	18
Service Occupations	30	.88	na	na
Janitor, Porter, or Cleaner	30	.88	16	10
Maintenance and Production Occupations	190	5.56	na	na
Merchandise Displayer	10	.29	28	5
Alteration Tailor	80	2.34	11	20
Stock Clerk, Sales Floor	50	1.46	32	9
All Other Skilled Craft and Kindred Workers	10	.29	na	na
All Other Operatives and Semiskilled Workers	40	1.17	na	na
Clerical Occupations	380	11.11	na	na
Accounting Clerk	20	.58	31	7
Bookkeeper, Hand	70	2.05	15	20
Cashier	110	3.22	20	16
General Clerk, Office	100	2.92	20	16
Secretary	20	.58	22	7
Shipping and/or Receiving Clerk	40	1.17	17	12
Stock Clerk, Stockroom, Warehouse, or Storage Yard	20	.58	32	6
Sales Occupations	2,100	61.40	na	na
Sales Representative, Sales Agent, and/or Sales Associate	170	4.97	22	12
Sales Clerk	1,930	56.43	3	90

EATING AND DRINKING PLACES
SIC 58
June 1982

This major industry group includes retail establishments selling prepared foods and drinks for consumption on the premises, and also lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	23,710	100.00	na	na
Managers and Officers	1,580	6.66	na	na
Director, Food and Beverage	180	.76	25	18
Manager, Restaurant, Coffee Shop, or Liquor Establishment	1,380	5.82	11	71
All Other Managers and Officers	20	.08	na	na
Professional Occupations	10	.04	na	na
Service Occupations	20,270	85.49	na	na
Janitor, Porter, or Cleaner	430	1.81	21	30
Baker, Bread and/or Pastry	260	1.10	25	21
Bartender	860	3.63	15	40
Dining Room Attendant	710	2.99	25	20
Host/Hostess, Restaurant, Lounge, or Coffee Shop	540	2.28	15	36
Supervisor, Nonworking - Service Only	310	1.31	26	17
Kitchen Helper	1,850	7.80	12	54
Waiter or Waitress	7,360	31.04	8	69
Cook, Short Order and/or Specialty Fast Foods	1,340	5.65	21	30
Cook, Restaurant	1,660	7.00	12	53
Food Preparation and Service Worker, Fast Food Restaurant	4,110	17.33	20	23
All Other Food Service Workers	630	2.66	na	na
All Other Service Workers	210	.89	na	na
Production and Maintenance Workers	190	.80	na	na
Skilled Craft and Kindred Workers	130	.55	na	na
Operative and Semiskilled Workers	20	.08	na	na
Laborers and Unskilled Workers	40	.17	na	na
Clerical Occupations	1,320	5.57	na	na
Bookkeeper, Hand	180	.76	26	18
Cashier	920	3.88	27	33
General Clerk, Office	110	.46	34	12
All Other Office Clerical Workers	110	.46	na	na
Sales Occupations	340	1.43	na	na

MISCELLANEOUS RETAIL STORES
SIC 59
June 1982

This major industry group includes retail establishments not elsewhere classified. These establishments fall into the following categories: drug stores, liquor stores, used merchandise stores, nonstore retailers, fuel and ice dealers, miscellaneous shopping goods stores, florists, cigar stores and stands, and miscellaneous retail stores not elsewhere classified.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Total All Occupations	11,100	100.00	na	na
Managers and Officers	1,500	13.51	na	na
Manager, Merchandise	140	1.26	26	15
Manager, Store	1,140	10.27	8	74
All Other Managers and Officers	220	1.98	na	na
Professional Occupations	1,110	10.00	na	na
Pharmacist	590	5.32	11	24
Designer	230	2.07	27	7
All Other Professional Workers	290	2.61	na	na
Technical Occupations	90	.81	na	na
Service Occupations	270	2.43	na	na
Janitor, Porter, or Cleaner	70	.63	28	11
Food Service Workers	190	1.71	na	na
All Other Service Workers	10	.09	na	na
Maintenance and Production Occupations	2,600	23.42	na	na
Gas and Electric Appliance Repairer	110	.99	29	11
All Other Mechanics and Repairers	60	.54	na	na
Truck Driver	290	2.61	26	13
Delivery and/or Route Worker	590	5.32	30	28
Oil Burner Installer	360	3.24	18	15
All Other Skilled Craft and Kindred Workers	310	2.79	na	na
All Other Operatives and Semiskilled Workers	220	1.98	na	na
All Other Laborers and Unskilled Workers	660	5.95	na	na
Clerical Occupations	2,990	26.94	na	na
Bookkeeping and/or Billing Machine Operator	110	.99	28	13
Accounting Clerk	110	.99	22	10
Bookkeeper, Hand	330	2.97	15	33
Cashier	960	8.65	21	29
General Clerk, Office	530	4.77	19	29
Order Clerk	150	1.35	22	4
Secretary	110	.99	27	14

SIC 59 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Clerical Occupations (continued)				
All Other Office Clerical Workers	270	2.43	na	na
Shipping and/or Receiving Clerk	80	.72	29	10
Stock Clerk, Stockroom, Warehouse, or Storage Yard	270	2.43	30	12
All Other Plant Clerical Workers	70	.63	na	na
Sales Occupations	2,540	22.88	na	na
Sales Representative, Sales Agent, and/or Sales Associate	460	4.14	28	17
Sales Clerk	2,070	18.65	11	48
All Other Sales Workers	10	.09	na	na

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BUREAU OF EMPLOYMENT SECURITY
Division of Economic Analysis and Research

MAINE OCCUPATIONAL STAFFING PATTERNS

For

Federal Government,

October 1982

State Government,

May 1982

And

Local Government,

May 1982

Labor Market Information Services

MAINE OCCUPATIONAL STAFFING PATTERNS

FOR

FEDERAL GOVERNMENT, OCTOBER 1982

STATE GOVERNMENT, MAY 1982

AND

LOCAL GOVERNMENT, MAY 1982

This labor market information is developed through a cooperative program with the U.S. Bureau of Labor Statistics, entitled the Occupational Employment Statistics (OES) Program

DIVISION OF ECONOMIC ANALYSIS AND RESEARCH
Raynold A. Fongemie, Director

Occupational Outlook and Job Information Section, Ronald R. Leonard, Chief

ISSUED MARCH 1985

AUGUSTA, MAINE

PREFACE

We wish to express our thanks to all the employers who supplied the necessary occupational employment data on which the estimates presented herein are based, and to the Maine Department of Personnel for making their files available for this purpose. This publication would not have been possible without their support.

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INTRODUCTION

This publication is one of a continuing number of reports covering occupational employment for selected industries in Maine. The information in these reports relates to part of a comprehensive "labor market and occupational supply and demand information system" which is mandated by the Job Training Partnership Act of 1982. This federal legislation, coupled with the rapidly expanding public awareness of the need for more vocational training, has resulted in an unparalleled demand for current employment data and projections of future employment requirements by occupation.

The Occupational Employment Statistics (OES) Program is mandated as the system which supplies the occupational data leading to an "Occupational Supply and Demand Information System." This program is a federal-state endeavor involving many state employment security agencies throughout the nation, in conjunction with the U.S. Bureau of Labor Statistics. This OES program consists of three distinct, yet integral components: survey operations, industry-occupation matrices, and projections.

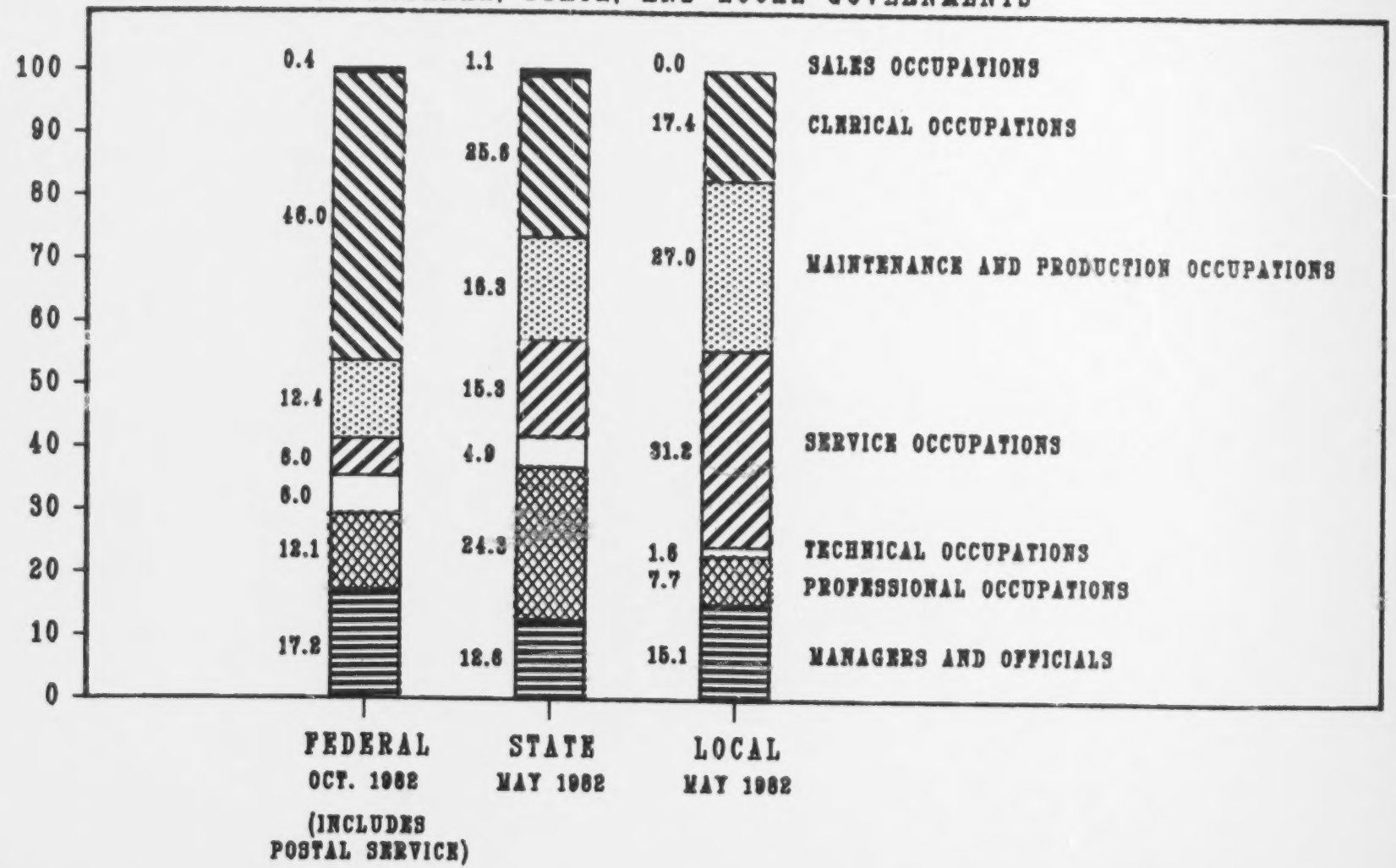
The first part of the OES program consists primarily of collecting occupational employment data by industry through a survey questionnaire mailed to a sample of establishments throughout the State. The sample data received is expanded, using a system of weights and benchmark factors, to produce statewide staffing patterns for the industry. These staffing patterns can then be applied to current or projected estimates of industrial employment to produce estimates of employment by occupation for the State or substate areas.

This publication, a direct result of the survey phase of the OES program, contains the staffing patterns for federal, state, and local government. The actual employment data was collected as of October 1982 for federal government and the week of the 12th of May 1982 for state and local government.

Other booklets have already been published covering nearly all wage and salary workers in Maine. Approximately one-third of the State's industries will be surveyed each year, so that the entire economy will be covered every three years. Using this cycle, employers are asked to provide occupational data only once every three years. This ensures that no part of the data is over three years old, and that significant changes in the staffing patterns of industries can be identified early, as the trend develops.

The information obtained from these surveys is used in the second phase of the OES program, constructing industry-occupation matrices covering all sectors of our economy. These matrices, in turn, provide the base data that is used to project occupational requirements and is one of the basic ingredients of the "Comprehensive Manpower Information System."

PERCENT DISTRIBUTION OF EMPLOYMENT BY MAJOR OCCUPATIONAL CATEGORIES IN FEDERAL, STATE, AND LOCAL GOVERNMENTS



FEDERAL GOVERNMENT
October 1982

Occupation	Estimated Employment	Percent of Employment
Total All Occupations	9,206	100.00
Managers and Officers	1,579	17.15
Public Administration Inspectors, Except Construction	362	3.93
Construction Inspector	29	0.32
Postmaster and/or Mail Superintendent	469	5.09
All Other Managers	719	7.81
Professional Occupations	1,115	12.11
Agricultural Engineer	2	0.02
Civil Engineer	29	0.32
Electrical and/or Electronic Engineer	17	0.18
Industrial Engineer	1	0.01
Mechanical Engineer	20	0.22
Nuclear Engineer	2	0.02
All Other Engineers	20	0.22
Statistician	1	0.01
Chemist	1	0.01
Geologist or Geophysicist	9	0.10
Meteorologist	12	0.13
All Other Physical Scientists	1	0.01
Agricultural Scientist	19	0.21
Biological Scientist	26	0.28
Forester and Conservation Scientist	35	0.38
Economist	4	0.04
Psychologist	16	0.17
Urban and Regional Planner	1	0.01
Systems Analyst, Electronic Data Processing	10	0.11
Teacher and/or Instructor, Nonvocational Education	16	0.17
Photographer	3	0.03
Purchasing Agent and/or Buyer	54	0.59
Accountant and/or Auditor	49	0.53
Architect	9	0.10
Caseworker	25	0.27
Clergy	4	0.04
Commercial Artist	2	0.02
Dentist	6	0.07
Dietitian and/or Nutritionist	5	0.05
Law Clerk	16	0.17
Lawyer	21	0.23
Librarian, Professional	4	0.04
Nurse, Professional	181	1.97
Occupational Therapist	4	0.04
Physical Therapist	5	0.05
Manual Arts, Music, and/or Recreational Therapist	6	0.07
Corrective Therapist	5	0.05
All Other Therapists	1	0.01

FEDERAL GOVERNMENT (continued)

Occupation	Estimated Employment	Percent of Employment
Professional Occupations (continued)		
Paralegal Personnel	6	0.07
Personnel and Labor Relations Specialists	50	0.54
Pharmacist	8	0.09
Physician and/or Surgeon	76	0.83
Podiatrist	1	0.01
Public-Relations Practitioner	1	0.01
Veterinarian	11	0.12
Judge	6	0.07
Tax Examiner, Collector, and/or Revenue Agent	95	1.03
Appraiser, Real Estate	2	0.02
Special Agent, Insurance	2	0.02
Group Recreation Worker	1	0.01
All Other Professional Workers	214	2.32
Technical Occupations	552	6.00
Computer Programmer	4	0.04
Drafter	3	0.03
Electrical and/or Electronic Technician	101	1.10
Surveyor	9	0.10
Broadcast Technician	19	0.21
All Other Engineering Technicians	30	0.33
Physical Science Technician	22	0.24
Biological Science Technician	93	1.01
Air Traffic Controller	69	0.75
Dental Assistant	6	0.07
Licensed Practical Nurse	40	0.43
Physician's Assistant	6	0.07
Airplane Pilot	14	0.15
Technical Assistant, Library	4	0.04
Pharmacy Helper	7	0.08
Medical Record Librarian	4	0.04
Dental Hygienist	2	0.02
Medical Laboratory Technologist	24	0.26
Prosthetist-Orthotist	2	0.02
Electrocardiograph Technician	10	0.11
Radiologic Technologist and/or Nuclear Medical Technologist	11	0.12
All Other Medical and Dental Technologists and Technicians	22	0.24
All Other Technicians	50	0.54
Service Occupations	551	5.99
Janitor, Porter, or Cleaner	77	0.84
Guard and/or Doorkeeper	21	0.23
Butcher and/or Meat Cutter	12	0.13
Cook, Institution or Cafeteria	15	0.16
All Other Food Service Workers	108	1.17
Barber	3	0.03

FEDERAL GOVERNMENT (continued)

Occupation	Estimated Employment	Percent of Employment
Service Occupations (continued)		
Housekeeper	2	0.02
Nurse Aide and/or Orderly	135	1.47
Fish or Game Warden	2	0.02
Social Service Aide	2	0.02
Occupational Therapy Assistant	6	0.07
Police and Detective Supervisor	22	0.24
Detective, Police	34	0.37
U.S. Marshall	9	0.10
Fire Fighter	103	1.12
Maintenance and Production Occupations	1,139	12.37
Supervisor, Nonworking	2	0.02
Mechanic, Aircraft	80	0.87
Mechanic, Automotive	38	0.41
Body Repairer, Automotive	3	0.03
Electric-Tool Repairer	1	0.01
Electromedical Equipment Repairer	3	0.03
Engineering-Equipment Mechanic	54	0.59
Locksmith	2	0.02
Mechanic, Maintenance	93	1.01
Refrigeration Mechanic and/or Air Conditioning Mechanic	11	0.12
Electronic Mechanic	35	0.38
Gas and Electric Appliance Repairer	2	0.02
All Other Mechanics and Repairers	16	0.17
Marker, Classifier, Wet Wash Assembler, Detacher, and/or Checker	11	0.12
Washer, Machine and/or Starcher	3	0.03
Dry Cleaning Machine Operator	1	0.01
Laundry Presser, Machine	3	0.03
Truck Driver	34	0.37
Cabinetmaker	5	0.05
Cable Splicer	6	0.07
Carpenter	45	0.49
Conductor, Train	2	0.02
Crane, Derrick, and/or Hoist Operator	5	0.05
Crater	3	0.03
Electrician	48	0.52
Exterminator	3	0.03
Heavy Equipment Operator	30	0.33
Rigger	1	0.01
Industrial Truck Operator	22	0.24
Inspector	16	0.17
Installer Repairer and/or Section Maintainer	5	0.05
Line Installer-Repairer	1	0.01
Maintenance Repairer, General Utility	53	0.58
Painter, Maintenance	39	0.42
Plumber and/or Pipefitter	43	0.47

FEDERAL GOVERNMENT (continued)

Occupation	Estimated Employment	Percent of Employment
Maintenance and Production Occupations (continued)		
Roofer	1	0.01
Dental Laboratory Technician	2	0.02
Sewage Plant Operator	6	0.07
Sewing Machine Operator, Regular Equipment-Garment	4	0.04
Sheet Metal Worker	10	0.11
Stationary Boiler Firer	58	0.63
Stationary Engineer	23	0.25
Stone Mason	7	0.08
Animal Caretaker	1	0.01
Tile Setter	1	0.01
Water Treatment Plant Operator	7	0.08
Welder and/or Flamecutter	7	0.08
Offset Lithographic Press Operator, Sheet, Roll, or Web Fed	5	0.05
Platemaker	1	0.01
Service Station Attendant, Fuel Pump Attendant, and/or Lubricator	6	0.07
Highway Maintenance Man	1	0.01
Machine Tool Operator, Combination	4	0.04
Tester	1	0.01
Ceiling Tile Installer and/or Floor Layer	2	0.02
Upholsterer	1	0.01
Gardener and/or Groundskeeper	4	0.04
Bindery Worker	1	0.01
All Other Skilled Craft and Kindred Workers	3	0.03
All Other Operatives and Semiskilled Workers	50	0.54
All Other Laborers and Unskilled Workers	214	2.32
Clerical Occupations	4,235	46.00
Clerical Supervisor, Office or Plant	6	0.07
Computer Operator	14	0.15
Keypunch Operator	18	0.20
Tabulating Machine Operator	1	0.01
All Other Office Machine Operators	3	0.03
Stenographer	39	0.42
Accounting Clerk	73	0.79
Bookkeeper, Hand	10	0.11
Cashier	11	0.12
Claim Adjuster	19	0.21
Claims Clerk	63	0.68
General Clerk, Office	249	2.70
Mail Clerk	35	0.38
Payroll and/or Timekeeping Clerk	14	0.15
Personnel Clerk	45	0.49
Procurement Clerk	6	0.07
Real Estate Clerk	3	0.03
Secretary	155	1.68
Statistical Clerk	3	0.03

FEDERAL GOVERNMENT (continued)

Occupation	Estimated Employment	Percent of Employment
Clerical Occupations (continued)		
Switchboard Operator	16	0.17
Travel Clerk	6	0.07
Typist	176	1.91
Postal Service Clerk	731	7.94
All Other Office Clerical Workers	241	2.62
Production Clerk and/or Coordinator	47	0.51
Shipping Packer	2	0.02
Shipping and/or Receiving Clerk	12	0.13
Stock Clerk, Stockroom, Warehouse, or Storage Yard	5	0.05
Dispatcher, Vehicle, Service or Work	4	0.04
Postal Mail Carrier	2,120	23.03
All Other Plant Clerical Workers	108	1.17
Sales Occupations	35	0.38
Sales Clerks	35	0.38

STATE GOVERNMENT
May 1982

Occupation	Estimated Employment	Percent of Employment
Total All Occupations	12,021	100.00
Managers, Officers, Elected Officials, and Public Administration Inspectors	1,513	12.59
Chief Executives, General Administrators, and Legislators	178	1.48
Public Administration Inspectors, Except Construction	351	2.92
All Other Managers	984	8.19
Professional Occupations	2,922	24.31
Judge	44	0.37
Lawyer	132	1.10
Law Clerk	25	0.21
Paralegal Personnel	19	0.16
Welfare Investigator	44	0.37
Caseworker	460	3.83
Community Organization Worker	27	0.22
Group Recreation Worker	4	0.03
Physician and/or Surgeon	7	0.06
Veterinarian	6	0.05
Nurse, Professional	133	1.11
Dietitian and/or Nutritionist	7	0.06
Occupational Therapist	11	0.09
Physical Therapist	8	0.07
Speech Pathologist and/or Audiologist	7	0.06
All Other Therapists	3	0.02
Accountant and/or Auditor	199	1.66
Budget Analyst	7	0.06
Tax Examiner, Collector, and/or Revenue Agent	80	0.67
Assessor	36	0.30
Purchasing Agent and/or Buyer	13	0.11
Librarian, Professional	11	0.09
Personnel and/or Labor Relations Specialist	45	0.37
Employment Interviewer	100	0.83
Vocational and Educational Counselor	218	1.81
Teacher and/or Instructor, Vocational Education or Training	10	0.08
Claims Taker, Unemployment Benefits	91	0.76
Public Relations Practitioner	16	0.13
Photographer	5	0.04
Commercial Artist	1	0.01
Systems Analyst, Electronic Data Processing	79	0.66
Sociologist	42	0.35
Economist	36	0.30
Psychologist	19	0.16
Urban and Regional Planner	5	0.04
All Other Social Scientists	4	0.03

STATE GOVERNMENT (continued)

Occupation	Estimated Employment	Percent of Employment
Professional Occupations (continued)		
Architect	3	0.02
Landscape Architect	8	0.07
Civil Engineer	179	1.49
Mechanical Engineer	1	0.01
Safety Engineer	1	0.01
All Other Engineers	6	0.05
Forester and Conservation Scientist	34	0.28
Biological Scientist	82	0.68
All Other Life Scientists	59	0.49
Chemist	22	0.18
All Other Physical Scientists	19	0.16
Financial Analyst	7	0.06
Statistician	9	0.07
All Other Mathematical Scientists	3	0.02
All Other Professional Workers	535	4.45
Technical Occupations	590	4.91
Physician's Assistant	2	0.02
Licensed Practical Nurse	29	0.24
Medical or Dental Technician or Technologist	21	0.17
Computer Programmer	28	0.23
Drafter	8	0.07
Civil Engineering Technician	1	0.01
Electrical and/or Electronic Technician	2	0.02
All Other Engineering Technicians	405	3.37
Radio Operator	43	0.36
Science Technician	24	0.20
All Other Technicians	27	0.22
Service Occupations	1,827	15.20
Supervisor, Nonworking, Except Police and Detective Supervisor	33	0.27
Police and Detective Supervisor	69	0.57
Police Patrol Officer	258	2.15
Correction Officer and/or Jailer	275	2.29
Recreation Facility Attendant	54	0.45
Child Care Worker	32	0.27
Social Service Aide	45	0.37
Nurse Aide and/or Orderly	17	0.14
Guard and/or Doorkeeper	10	0.08
Janitor, Porter, or Cleaner	225	1.87
Forest Conservation Worker	136	1.13
Fish or Game Warden	141	1.17
Cook, Institution or Cafeteria	36	0.30
All Other Food Service Workers	20	0.17
All Other Service Workers	476	3.96

STATE GOVERNMENT (continued)

Occupation	Estimated Employment	Percent of Employment
Maintenance and Production Occupations	1,965	16.35
Supervisor, Nonworking	269	2.24
Carpenter	42	0.35
Electrician	16	0.13
Painter, Maintenance	13	0.11
Plumber and/or Pipefitter	6	0.05
Machinist	4	0.03
Stationary Engineer	11	0.09
Stationary Boiler Firer	26	0.22
Instrument Repairer	1	0.01
Mechanic, Automotive	182	1.51
Radio Mechanic	11	0.09
Mechanic, Maintenance	30	0.25
All Other Mechanics and Repairers	16	0.13
Maintenance Repairer, General Utility	16	0.13
Helper, Trades	4	0.03
Water Treatment Plant Operator	1	0.01
Truck Driver	8	0.07
Heavy Equipment Operator	14	0.12
Delivery and/or Route Worker	2	0.02
Gardener and/or Groundskeeper	8	0.07
Highway Maintenance Man	923	7.68
All Other Skilled Craft and Kindred Workers	58	0.48
All Other Operatives and Semiskilled Workers	121	1.01
All Other Laborers and Unskilled Workers	183	1.52
Clerical Occupations	3,075	25.58
Clerical Supervisor, Office or Plant	82	0.68
Court Clerk	50	0.42
Eligibility Worker, Welfare	298	2.48
Library Assistant	4	0.03
License Clerk	65	0.54
Cashier	177	1.47
Switchboard Operator	19	0.16
Switchboard Operator/Receptionist	2	0.02
Secretary	121	1.01
Stenographer	273	2.27
Typist	1,158	9.63
File Clerk	4	0.03
Personnel Clerk	1	0.01
Accounting Clerk	132	1.10
Statistical Clerk	4	0.03
Bookkeeping and/or Billing Machine Operator	14	0.12
Computer Operator	31	0.26
Keypunch Operator	100	0.83
Peripheral EDP Equipment Operator	1	0.01
All Other Office Machine Operators	18	0.15

STATE GOVERNMENT (continued)

Occupation	Estimated Employment	Percent of Employment
Clerical Occupations (continued)		
General Office Clerk	289	2.40
All Other Office Clerical Workers	161	1.34
Dispatcher, Vehicle, Service or Work	5	0.04
Stock Clerk, Stockroom, Warehouse, or Storage Yard	48	0.40
Shipping and/or Receiving Clerk	17	0.14
All Other Plant Clerical Workers	1	0.01
Sales Occupations	129	1.07
Sales Clerk	129	1.07

LOCAL GOVERNMENT
May 1982

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Total All Occupations	11,150	100.00	na	na
Managers and Officers	1,680	15.07	na	na
Public Administration Inspector, Except Construction	110	0.99	20	30
Construction Inspector	110	0.99	16	36
Chief Executive, General Administrator, or Legislator	640	5.74	11	76
All Other Managers and Officers	820	7.35	7	89
Professional Occupations	860	7.71	na	na
Civil Engineer	70	0.63	22	26
All Other Engineers	10	0.09	na	na
All Natural Scientists and Mathematicians	10	0.09	na	na
Urban and Regional Planner	30	0.27	36	13
Purchasing Agent and/or Buyer	10	0.09	3	7
Accountant and/or Auditor	60	0.54	21	19
Budget Analyst	10	0.09	41	6
Caseworker	40	0.36	7	12
Lawyer	20	0.18	14	12
Librarian, Professional	70	0.63	30	28
Nurse, Professional	30	0.27	16	12
Paralegal Personnel	20	0.18	6	7
Personnel and/or Labor Relations Specialist	10	0.09	3	7
Community Organization Worker	20	0.18	14	7
Welfare Investigator	20	0.18	17	13
Judge	10	0.09	37	11
Tax Examiner, Collector, and/or Revenue Agent	100	0.90	19	33
Assessor	180	1.61	23	46
Appraiser, Real Estate	10	0.09	5	4
Group Recreation Worker	100	0.90	6	16
All Other Professional Workers	30	0.27	na	na
Technical Occupations	180	1.61	na	na
Computer Programmer	10	0.09	3	6
Drafter	10	0.09	3	6
Civil Engineering Technician	10	0.09	3	8
All Other Engineering Technicians	10	0.09	na	na
Technical Assistant, Library	20	0.18	11	9
Medical or Dental Technician or Technologist	10	0.09	6	3
Emergency Medical Technician	80	0.72	21	8
All Other Technicians	30	0.27	na	na

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Service Occupations	3,480	31.21	na	na
Janitor, Porter, or Cleaner	280	2.51	7	62
Guard or Doorkeeper	20	0.18	8	4
Kitchen Helper	40	0.36	13	5
Cook, Institution	50	0.45	20	14
All Other Food Service Workers	30	0.27	8	3
Recreation Facility Attendant	70	0.63	35	16
Forest Conservation Worker	10	0.09	6	3
School Crossing Guard	140	1.26	16	20
Lifeguard	20	0.18	7	3
Social Service Aide	30	0.27	28	10
Officer, Police	260	2.33	8	50
Detective, Police	60	0.54	2	20
Police Patrol Officer	1,050	9.42	7	64
Parking Enforcement Officer	20	0.18	25	9
Correction Officer and/or Jailer	220	1.97	5	11
Sheriff	150	1.35	12	17
Bailiff	50	0.45	5	9
Fire Inspector	10	0.09	3	8
Fire Fighting and Prevention Supervisor	200	1.79	3	19
Fire Fighter	670	6.01	6	30
All Other Service Workers	100	0.90	na	na
Maintenance and Production Occupations	3,010	27.00	na	na
Supervisor, Nonworking	160	1.43	14	31
Mechanic, Automotive	80	0.72	9	27
Diesel Mechanic	10	0.09	7	3
Engineering Equipment Mechanic	10	0.09	8	3
Mechanic, Maintenance	80	0.72	24	16
Treatment Plant Mechanic	30	0.27	3	11
Truck Driver	260	2.33	18	33
Bus Driver	110	0.99	7	4
Carpenter	20	0.18	5	8
Electrician	20	0.18	28	6
Heavy Equipment Operator	340	3.05	12	45
Maintenance Repairer, General Utility	210	1.88	25	23
Painter, Maintenance	20	0.18	14	5
Pipelayer	90	0.81	48	5
Plumber and/or Pipefitter	10	0.09	8	3
Refuse Collector	90	0.81	16	14
Sewage Plant Operator	240	2.15	21	35
Animal Caretaker	10	0.09	6	4
Water Treatment Plant Operator	120	1.08	37	12
Pump Station Operator, Waterworks	10	0.09	6	4
Highway Maintenance Man	530	4.75	11	47
Gardener and/or Groundskeeper	160	1.43	29	15
Ambulance Driver and/or Ambulance Attendant	30	0.27	7	4

LOCAL GOVERNMENT (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Maintenance and Production Occupations (continued)				
All Other Skilled Craft and Kindred Workers..	60	0.54	na	na
All Other Operatives and Semiskilled Workers.	50	0.45	na	na
All Other Laborers and Unskilled Workers.....	260	2.33	na	na
Clerical Occupations.....	,940	17.40	na	na
Clerical Supervisor, Office or Plant.....	10	0.09	7	4
Bookkeeping and/or Billing Machine Operator..	10	0.09	6	4
Computer Operator.....	20	0.18	3	14
Keypunch Operator.....	10	0.09	3	5
All Other Office Machine Operators.....	10	0.09	5	5
Accounting Clerk.....	120	1.08	14	31
Bookkeeper, Hand.....	100	0.90	18	31
Cashier.....	100	0.90	18	15
File Clerk.....	40	0.36	5	6
General Clerk, Office.....	240	2.15	13	40
Library Assistant.....	110	0.99	19	21
Payroll and/or Timekeeping Clerk.....	20	0.18	10	17
Personnel Clerk.....	10	0.09	38	9
Procurement Clerk.....	10	0.09	4	4
Receptionist.....	10	0.09	31	5
Secretary.....	300	2.69	9	61
Statistical Clerk.....	10	0.09	26	3
Switchboard Operator.....	10	0.09	6	3
Switchboard Operator/Receptionist.....	10	0.09	4	8
Typist.....	200	1.79	9	35
Eligibility Worker, Welfare.....	20	0.18	15	10
Court Clerk.....	10	0.09	35	5
Town Clerk.....	160	1.43	12	58
All Other Office Clerical Workers.....	40	0.36	na	na
Meter Reader, Utilities.....	40	0.36	43	7
Stock Clerk, Stockroom, Warehouse, or Storage Yard.....	20	0.18	25	12
Dispatcher, Vehicle, Service or Work.....	30	0.27	3	10
Dispatcher, Police, Fire and Ambulance.....	270	2.42	13	50

METHODOLOGY

Federal Government

The occupational employment data for this survey was sent to the Maine Department of Labor, Bureau of Employment Security by the U.S. Bureau of Labor Statistics. The data was taken from the Central Personnel Data System (CPDS) maintained by the Office of Personnel Management (OPM). All data was converted into the Occupational Employment Statistics (OES) occupational classification system.

The data represented in this publication includes full-time temporary, full-time permanent, part-time temporary and part-time permanent employees on the federal payroll who were paid in the State of Maine as of October 1982, including workers employed in federal hospitals and postal services. Because this represents a total count, or census, the figures were not rounded, and there was no relative error since the data was not estimated from a sample.

State Government

The Maine Department of Labor, Bureau of Employment Security received from the State Department of Personnel an "employee file" which lists all classified persons employed by the State of Maine and most of the unclassified positions. This file is updated constantly. The data represented in this publication are as of the week of May 12, 1982. From this file all employees were tallied, except those employed in hospitals or educational services. Information to supplement this file was collected from all other state government units in the judicial and legislative branches, the Maine Turnpike Authority, and the Department of Transportation for their outstationed work crews, which are not included in the employee file. The State has approximately 1,200 different job titles, all of which were converted to the Occupational Employment Statistics (OES) occupational classification system.

Since the data in this publication represents a total count, or census, the figures were not rounded, and there was no relative error since the data was not estimated from a sample.

Local Government

The second quarter 1981 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law was used as the sampling frame for this survey of local government. This universe consisted of 582 units employing a total of 13,621 workers. Of these, the survey included 113 units, or 19.4 percent of the universe. These sample units employed 9,803 workers, accounting for 72.0 percent of the total universe employment in this industry.

This survey consisted of an initial mailing and two follow-up mailings to nonrespondents. Occupational data was requested for the week of May 12, 1982. Phone calls and personal visits were made to those units whose responses were considered critical for valid estimates. Usable responses were received from 103 units or 91.2 percent of the sample. These responding units employed 8,999 workers, or 91.8 percent of the total sampled employment.

Each completed questionnaire returned was edited and screened both manually and mechanically for consistency and accuracy. The resulting "clean data file" served as the basis for estimating total occupational employment. The "clean" employer questionnaires were separated into seven size groups, according to the number of persons employed by each. The reported total employment and occupational employment on each form was then multiplied by the weight which had been assigned to it during sample selection. This data was then inflated to total local government employment for May 1982 based on the report of Employment, Wages, and Contributions covered by the Maine Employment Security Law. This was accomplished by dividing the total weighted survey data by size class into the universe data by corresponding size classes, thus producing benchmark factors. These factors were applied to the occupational data to account for nonresponding units and new units which emerged after the sample had been drawn. The resulting occupational estimates were summed across size classes and rounded to the nearest ten. The percent of occupational distribution for local government was then calculated.

Accuracy of Occupational Employment Data

There are two types of errors which affect the accuracy of the estimates published here--sampling and nonsampling errors. Sampling error is a specific arithmetic measure of the precision of an estimate. It is the difference between the estimate computed from the sample data and the result that would be obtained if the same methods were used to collect identical information from the entire population or universe. The relative error entries listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. In other words, relative error means that the chances are two out of three (a 68 percent confidence level) that the results of a comparable full-scale data collection (the universe) using the same survey approach would not differ by more than the percent error shown. The chances are 19 out of 20 (a 95 percent confidence level) that the results would not differ by more than twice the percent error shown. For example, it is estimated in this report that there are 1,050 police patrol officers in local government with a 7 percent relative error. Thus, at a 68 percent confidence level, it is assured that the results of a full-scale count of police patrol officers in this industry would not differ from this estimate by more than 74, i.e., 1,050 times 7 percent. At a 95 percent confidence level, the universe count would not differ from the estimate by more than 14 percent of 1,050, or 147 workers.

Nonsampling errors result from external factors in a survey rather than from the fact that a sampling technique was used. Examples of these errors are: response errors, processing errors, computational errors, etc. The possibility of these errors was recognized from the start of the survey and every effort was made to avoid them.

TECHNICAL NOTES

Estimated Employment

Total estimated employment in federal government includes all temporary and permanent employees on the federal payroll who were paid in the State of Maine as of October 1982, including workers employed in federal hospitals and the postal services, as maintained by the Office of Personnel Management, U.S. Bureau of Labor Statistics.

Total estimated employment in state government includes employment in all state government units as of May 1982, except workers in state operated hospitals, or educational services such as elementary and secondary schools, vocational high schools, universities, colleges, junior colleges and technical institutes.

Total estimated employment in local government includes employment in all municipal or quasi-municipal units as of May 1982, except local government owned hospitals, elementary and secondary schools, vocational high schols, universities, colleges, junior colleges and technical institutes.

Rounding

Detail in the "% of Total Empl." column may not add to totals due to rounding.

Relative Error

The relative errors listed for local government occupational employment were computed only for specific occupations and not for residual categories nor for occupational groupings. If the relative error of an occupational estimate exceeded 50 percent, the employment for that occupation was added to the residual category relevant to it. The relative error relates to the actual estimate before rounding. For an example of how the relative error is applied, see Accuracy of Occupational Data in the Methodology section.

Percent of Establishments Reporting the Occupation

The percent of local government establishments report each occupation could not be readily calculated for groups of occupations, but only for specific occupations.

Abbreviations

na - not applicable
Empl. - Employment

53465

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BUREAU OF EMPLOYMENT SECURITY
Division of Economic Analysis and Research

MAINE OCCUPATIONAL STAFFING PATTERNS

For

Manufacturing Industries

Data for Second Quarter 1983

MAINE OCCUPATIONAL STAFFING PATTERNS

FOR

MANUFACTURING INDUSTRIES

SECOND QUARTER 1983

This labor market information is developed through a cooperative program with the U.S. Bureau of Labor Statistics

DIVISION OF ECONOMIC ANALYSIS AND RESEARCH
Raynold A. Fongemie, Director

Occupational Outlook and Job Information Section, Ronald R. Leonard, Chief

ISSUED MARCH 1985

AUGUSTA, MAINE

PREFACE

We wish to express our thanks to all the employers who supplied the necessary occupational employment data on which the estimates presented herein are based. This publication would not have been possible without their cooperation.

We also wish to express our thanks to the U.S. Department of Labor, both in Washington, D.C. and the regional level in Boston, Massachusetts, for their assistance in this federal-state cooperative effort.

For further information regarding this report please write to us or call 207-289-2271.

Raynold A. Fongemie, Director
DIVISION OF ECONOMIC ANALYSIS AND RESEARCH

March 1985
Augusta, Maine 04330

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INTRODUCTION

This publication is one of a continuing number of reports covering occupational employment for selected industries in Maine. The informtion in these reports relates to part of a comprehensive "labor market and occupational supply and demand information system" which is mandated by the Job Training Partnership Act of 1982. This federal legislation, coupled with the rapidly expanding public awareness of the need for more vocational training, has resulted in an unparalleled demand for current employment data and projections of future employment requirements by occupation.

The Occupational Employment Statistics (OES) Program is mandated as the system which supplies the occupational data leading to an "Occupational Supply and Demand Information System." This program is a federal-state endeavor involving many state employment security agencies throughout the nation, in conjunction with the U.S. Bureau of Labor Statistics. The OES program consists of two components: survey operations and industry-occupation matrices. The data from this program is then used in our occupational employment projections program.

The first part of the OES program consists primarily of collecting occupational employment data by industry through a survey questionnaire mailed to a sample of establishments throughout the State. The sample data received is expanded, using a system of weights and benchmark factors, to produce statewide staffing patterns for the industry. These staffing patterns can then be applied to current or projected estimates of industrial employment to produce estimates of employment by occupations for the State or substate area.

This publication, a direct result of the survey phase of the OES program, contains the staffing patterns for manufacturing industries. The actual employment data was collected for the week of the 12th of April, May, or June 1983 depending on the industrial classification.

Other booklets have already been published covering nearly all wage and salary workers in Maine. Approximately one-third of the State's industries will be surveyed each year, so that the entire economy will be covered every three years. Using this cycle, employers are asked to provide occupational data only once every three years. This ensures that no part of the data is over three years old, and that significant changes in the staffing patterns of industries can be identified early, as the trend develops.

The information obtained from these surveys is used in the second phase of the OES program to construct industry-occupation matrices covering all sectors of our economy. These matrices, in turn, provide the data base used to project occupational requirements and is one of the basic ingredients of the "Comprehensive Manpower Information System."

Special Note
Compatibility with Previous Surveys

This publication represents a completely revised occupational classification system over that which has been used in all past publications resulting from the Occupational Employment Statistics (OES) Program. This new system incorporates emerging paraprofessionals and higher skilled occupations in the fields of health and computer science; identifies many more managerial occupations; compresses the occupational categories in "Maintenance and Production," retaining or enhancing the more highly skilled occupations and developing larger more aggregate level occupational categories for the remainder; and obtains compatibility with the 1980 Standard Occupational Classification (SOC) Manual. One main objective of this revised classification system is to create a system which reflects a balance between the majority of user needs for data and the practical limitations of survey collection.

If you have any comments or questions concerning this new occupational classification system, or the Occupational Employment Statistics (OES) Program as a whole, please do not hesitate to write or call us (207) 289-2271.

FOOD AND KINDRED PRODUCTS
SIC 20
June 1983

This major group includes establishments manufacturing or processing foods and beverages for human consumption and certain related products, such as manufactured ice, chewing gum, vegetable and animal fats and oils, and prepared feeds for animals and fowls.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	8,420	100.00	na	na
Managerial and Administrative Occupations	280	3.33	na	na
Financial Managers	20	0.24	24	8
Personnel, Training, and Labor Relations Managers	10	0.12	29	4
Marketing, Advertising, and Public Relations Managers	10	0.12	20	6
Industrial Production Managers	30	.36	11	9
General Managers and Top Executives	180	2.13	6	70
All Other Managers and Administrators	30	.36	na	na
Professional, Paraprofessional, and Technical Occupations	100	1.19	na	na
Accountants and Auditors	20	.24	15	13
Purchasing Agents and Buyers, Farm Products	10	.12	26	5
Purchasing Agents, except Wholesale, Retail, and Farm Products	10	.12	11	8
All Other Management Support Workers	10	.12	na	na
Industrial Engineers, except Safety	10	.12	22	5
Natural Scientists and Related Workers	20	.24	na	na
Computer Programmers	10	.12	30	3
All Other Professionals, Paraprofessionals, and Technical Occupations	10	.12	na	na
Sales and Related Occupations	190	2.26	na	na
First Line Supervisors and Manager/Supervisors, Sales and Related Occupations	40	.48	34	8
Sales Representatives, Scientific and Related Products and Services, except Retail	10	.12	23	5
Sales Representatives, except Scientific and Related Products or Services and Retail	70	.83	27	14
Salespersons, Retail	50	.59	25	5
All Other Sales and Related Workers	20	.24	na	na
Clerical and Administrative Support Occupations	550	6.53	na	na
First Line Supervisors and Manager/Supervisors, Clerical and Administrative Support Occupations	30	.36	15	8
Secretaries	50	.59	11	20
Receptionists and Information Clerks	10	.12	43	3
Typists	10	.12	24	4
Order Clerks, Materials, Merchandise, and Service	10	.12	15	6
Bookkeeping, Accounting, and Auditing Clerks	80	.95	6	46
Payroll and Timekeeping Clerks	20	.24	21	8
Billing, Cost, and Rate Clerks	40	.48	17	6
General Office Clerks	120	1.42	7	42
Data Entry Keyers, except Composing	40	.48	18	7
All Other Office Machine Operators	10	.12	na	na
Switchboard Operators	10	.12	24	4
Weighers, Measurers, Checkers, and Samplers, Recordkeeping	10	.12	42	4
Stock Clerks, Stockroom, Warehouse, or Storage Yard	10	.12	20	5
Traffic, Shipping, and Receiving Clerks	100	1.19	8	25
Service Occupations	310	3.68	na	na
Guards and Watch Guards	10	.12	21	5
Food and Beverage Preparation and Service Occupations	50	.59	27	4
Janitors and Cleaners, except Maids and Housekeeping Cleaners	230	2.73	20	34
All Other Cleaning and Building Service Workers, except Private Households	20	.24	na	na

SIC 20 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Agriculture, Forestry, Fishing, and Related Occupations	20	.24	na	na
Production, Construction, Operating, Maintenance, and Material Handling Occupations	6,970	82.78	na	na
First Line Supervisors and Manager/Supervisors, Mechanics, Installers, and Repairers	10	.12	18	4
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	260	3.09	12	45
First Line Supervisors and Manager/Supervisors, Transportation and Material Moving Machine and Vehicle Occupations	20	.24	14	5
All Other First Line Supervisors and Manager/Supervisors, Production, Construction, Maintenance, and Related	30	.36	na	na
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	70	.83	24	15
Machinery Maintenance Mechanics	120	1.43	26	28
Maintenance Repairers, General Utility	180	2.13	9	33
All Other Selected Machinery and Related Mechanics, Installers, and Repairers	70	.83	na	na
Automotive Mechanics	40	.48	14	8
Bus and Truck Mechanics and Diesel Engine Specialists	40	.48	12	6
Coin and Vending Machine Servicers and Repairers	20	.24	0	5
All Other Mechanics, Installers, and Repairers	20	.24	6	3
Carpenters	20	.24	34	4
Electricians	20	.24	16	6
Machinists	10	.12	41	6
Slaughterers and Butchers	30	.36	10	3
Bakers, Manufacturing	130	1.54	28	11
Food Batchmakers	20	.24	36	7
Cooking Machine Operators and Tenders, Food and Tobacco	60	.71	27	19
Roasting, Baking, and Drying Machine Operators and Tenders, Food and Tobacco	40	.48	20	5
Dairy Processing Equipment Operators, including Setters	90	1.07	19	10
Separating, Filtering, Clarifying, Precipitating, and Still Machine Operators and Tenders	20	.24	5	3
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	140	1.66	17	9
Packaging and Filling Machine Operators and Tenders	330	3.92	16	23
All Other Machine Setters and Setup Operators	30	.36	na	na
All Other Machine Operators and Tenders	150	1.78	na	na
Cannery Workers	1,740	20.66	21	22
Meat, Poultry, and Fish Cutters and Trimmers, Hand	740	8.79	11	19
Plant and System Occupations	20	.24	na	na
Truck Drivers, Heavy or Tractor Trailer	240	2.85	10	32
Truck Drivers, Light, including Delivery and Route Workers	150	1.78	16	19
Driver/Sales Workers	340	4.03	15	20
All Other Transportation and Related Workers	10	.12	na	na
Industrial Truck and Tractor Operators	160	1.90	18	14
All Other Material Moving Equipment Operators	50	.59	na	na
Machine Feeders and Offbearers	140	1.66	21	8
Freight, Stock, and Material Movers, Hand	110	1.30	28	18
Hand Packers and Packagers	680	8.07	17	25
Vehicle Washers and Equipment Cleaners	20	.24	39	5
All Other Helpers, Laborers, and Material Movers, Hand	600	7.12	17	15

Textile Mill Products
SIC 22
April 1983

This major group includes establishments engaged in performing any of the following operations: (1) preparation of fiber and subsequent manufacturing of yarn, thread, braids, twine, and cordage; (2) manufacturing broad woven fabric, narrow woven fabric, and knit fabric, and carpets and rugs from yarn; (3) dyeing and finishing fiber, yarn, fabric, and knit apparel; (4) coating, waterproofing, or otherwise treating fabric; (5) the integrated manufacture of knit apparel and other finished articles from yarn; and (6) the manufacture of felt goods, lace goods, nonwoven fabrics, and miscellaneous textiles.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	6,470	100.00	na	na
Managerial and Administrative Occupations	220	3.40	na	na
Financial Managers	20	.31	19	24
Personnel, Training, and Labor Relations Managers	10	.15	16	22
Marketing, Advertising, and Public Relations Managers	10	.15	25	11
Industrial Production Managers	40	.62	13	30
General Managers and Top Executives	80	1.24	4	84
All Other Managers and Administrators	60	.93	na	na
Professional, Paraprofessional, and Technical Occupations	130	2.01	na	na
Accountants and Auditors	20	.31	30	14
Purchasing Agents, except Wholesale, Retail, and Farm Products	10	.15	34	11
Industrial Engineers, except Safety	10	.15	24	8
Mechanical Engineers	10	.15	21	19
Engineering and Related Technicians and Technologists	30	.46	na	na
Physical and Life Science Technicians and Technologists	10	.15	na	na
Computer Programmers	10	.15	29	8
Health Practitioners, Technologists, Technicians, and Related Health Occupations	10	.15	32	8
Designers, except Interior Designers	20	.31	8	22
Sales and Related Occupations	80	1.24	na	na
First Line Supervisors and Manager/Supervisors, Sales and Related Occupations	30	.46	12	16
Sales Representatives, except Scientific and Related Products or Services and Retail	20	.31	5	16
All Other Sales and Related Workers	30	.46	na	na
Clerical and Administrative Support Occupations	380	5.87	na	na
First Line Supervisors and Manager/Supervisors, Clerical and Administrative Support Occupations	10	.15	19	14
Secretaries	60	.93	9	38
Receptionists and Information Clerks	10	.15	25	16
Personnel Clerks, except Payroll and Timekeeping	10	.15	20	19
Order Clerks, Materials, Merchandise, and Service	10	.15	31	11
Procurement Clerks	10	.15	36	8
Bookkeeping, Accounting, and Auditing Clerks	30	.46	9	41
Payroll and Timekeeping Clerks	20	.31	8	27
Billing, Cost, and Rate Clerks	10	.15	26	11
General Office Clerks	80	1.24	9	59
Computer Operators, except Peripheral Equipment	10	.15	13	11
Data Entry Keyers, except Composing	10	.15	6	14
Switchboard Operators	10	.15	13	11
Production, Planning, and Expediting Clerks	30	.46	22	22
Weighers, Measurers, Checkers, and Samplers, Recordkeeping	10	.15	18	8
Stock Clerks, Stockroom, Warehouse, or Storage Yard	20	.31	14	24
Traffic, Shipping, and Receiving Clerks	40	.62	7	51
Service Occupations	100	1.55	na	na
Guards and Watch Guards	50	.77	13	30
Janitors and Cleaners, except Maids and Housekeeping Cleaners	40	.62	7	43
All Other Cleaning and Building Service Workers, except Private Households	10	.15	na	na

SIC 22 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Production, Construction, Operating, Maintenance, and Material Handling Occupations	5,560	85.94	na	na
First Line Supervisors and Manager/Supervisors, Mechanics, Installers, and Repairers	10	.15	16	22
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	290	4.48	11	62
Production, Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	180	2.78	13	43
Machinery Maintenance Mechanics, Textile Machines	130	2.01	18	38
Millwrights	30	.46	36	14
Machinery Maintenance Workers	10	.15	10	11
Maintenance Repairers, General Utility	110	1.70	17	46
Menders, Garments, Linens, and Related	90	1.39	19	14
All Other Mechanics, Installers, and Repairers	10	.15	na	na
Carpenters	20	.31	12	19
Electricians	30	.46	10	27
Painters and Paperhangers, Construction and Maintenance	10	.15	39	8
Plumbers, Pipefitters, and Steamfitters	10	.15	17	8
Machinists	20	.31	16	22
Precision Textile, Apparel, and Furnishings Workers	10	.15	na	na
Selected Printing, Binding, and Related Workers	30	.46	na	na
Textile Machine Setters and Setup Operators	380	5.87	9	46
Textile Machine Operators and Tenders, Winding, Twisting, Knitting, Weaving, and Cutting	2,580	39.88	5	78
Extruding and Forming Machine Operators and Tenders, Synthetic or Glass Fibers	50	.77	19	8
Textile Draw-Out Machine Operators and Tenders	120	1.85	19	19
Textile Bleaching and Dyeing Machine Operators and Tenders	270	4.17	10	24
Pressing Machine Operators and Tenders, Textile, Garment, and Related Materials	30	.46	23	11
Other Selected Textile and Related Setters, Operators, and Other Related Workers	80	1.24	na	na
Boiler Operators and Tenders, Low Pressure	20	.31	31	8
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	70	1.08	15	11
All Other Machine Operators and Tenders	60	.93	na	na
Sewers, Hand	90	1.39	24	11
Cutters and Trimmers, Hand	30	.46	9	14
All Other Hand Workers	10	.15	na	na
Plant and System Occupations	10	.15	na	na
Truck Drivers, Heavy or Tractor Trailer	50	.77	14	27
Truck Drivers, Light, including Delivery and Route Workers	20	.31	5	16
Material Moving Equipment Operators	10	.15	na	na
Machine Feeders and Offbearers	70	1.08	19	16
Freight, Stock, and Material Movers, Hand	100	1.55	17	30
Hand Packers and Packagers	50	.77	10	22
All Other Helpers, Laborers, and Materials Movers, Hand	470	7.26	na	na

APPAREL AND OTHER FINISHED PRODUCTS
MADE FROM FABRICS AND SIMILAR MATERIALS
SIC 23 1/
April 1983

This major industry group, known as the cutting-up and needle trades, includes establishments producing clothing and fabricating products by cutting and sewing purchased woven or knit textile fabrics and related materials such as leather, rubberized fabrics, plastics, and furs.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	4,700	100.00	na	na
Managerial and Administrative Occupations	130	2.76	na	na
Industrial Production Managers	10	.21	0	14
General Managers and Top Executives	110	2.34	14	67
All Other Managers and Administrators	10	.21	na	na
Professional, Paraprofessional, and Technical Occupations	70	1.49	na	na
Accountants, Auditors, and Other Financial Specialists	10	.21	na	na
Industrial Engineers, except Safety	10	.21	0	9
Computer Scientists and Related Workers	10	.21	na	na
Teachers and Instructors, Vocational Education and Training	20	.43	0	11
Selected Writers, Artists, Entertainers, Athletes, and Related Occupations	20	.43	na	na
Sales and Related Occupations	50	1.06	na	na
Clerical and Administrative Support Occupations	470	10.00	na	na
First Line Supervisors and Manager/Supervisors, Clerical and Administrative Support Occupations	30	.64	0	17
Secretaries	40	.85	21	31
Bookkeeping, Accounting, and Auditing Clerks	60	1.28	12	50
Payroll and Timekeeping Clerks	20	.43	2	31
General Office Clerks	140	2.97	5	33
Other Secretarial Related and General Office Workers	30	.64	na	na
Electronic Data Processing and Other Office Machine Occupations	30	.64	na	na
Production, Planning, and Expediting Clerks	10	.21	3	11
Stock Clerks, Stockroom, Warehouse, or Storage Yard	40	.85	10	25
Traffic, Shipping, and Receiving Clerks	60	1.28	13	42
All Other Clerical and Administrative Support Workers	10	.21	na	na
Service Occupations	50	1.06	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	40	.85	8	42
All Other Service Workers	10	.21	na	na
Production, Construction, Operating, Maintenance, and Material Handling Occupations	3,930	83.62	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	140	2.97	8	69
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	190	4.05	12	44
Machinery Maintenance Mechanics, Sewing Machines	40	.85	7	42
Maintenance Repairers, General Utility	10	.21	32	14
Other Mechanics Installers and Repairers	10	.21	na	na
Construction Trades and Extractive Occupations, except Material Moving	10	.21	na	na
Fabric and Apparel Patternmakers and Layout Workers	20	.43	31	.25
Custom Tailors and Sewers	10	.21	2	11
All Other Precision Textile, Apparel, and Furnishings Workers	10	.21	na	na
Selected Printing, Binding, and Related Workers	20	.43	na	na
Textile Machine Operators and Tenders, Winding, Twisting, Knitting, Weaving, and Cutting	50	1.06	41	14
Sewing Machine Operators, Garment	2,110	44.90	2	58
Sewing Machine Operators, Nongarment	480	10.22	18	36
Pressing Machine Operators and Tenders, Textile, Garment, and Related Materials	120	2.55	1	31

SIC 23 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Other Machine Setters, Setup Operators, Operators, and Tenders, except Metal and Plastic	20	.43	na	na
Pressers, Hand	20	.43	27	14
Cutters and Trimmers, Hand	90	1.91	19	31
Portable Machine Cutters	60	1.28	13	33
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	50	1.06	29	8
All Other Hand Workers	240	5.11	na	na
Freight, Stock, and Material Movers, Hand	50	1.06	24	22
Hand Packers and Packagers	50	1.06	40	22
All Other Helpers, Laborers, and Material Movers, Hand	130	2.77	na	na

1/ Excludes SIC 235 - Hats, Caps, and Millinery

LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
SIC 24
May 1983

This major group includes logging camps engaged in cutting timber and pulpwood, merchant sawmills, lath mills, shingle mills, cooperage stock mills, planing mills, and plywood mills and veneer mills engaged in producing lumber and wood basic materials; and establishments engaged in manufacturing finished articles made entirely or mainly of wood or wood substitutes.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	11,130	100.00	na	na
Managerial and Administrative Occupations	470	4.22	na	na
Financial Managers	10	.09	19	2
Personnel, Training, and Labor Relations Managers	10	.09	19	2
Purchasing Managers	10	.09	27	1
Marketing, Advertising, and Public Relations Managers	10	.09	21	2
Industrial Production Managers	50	.45	12	13
General Managers and Top Executives	370	3.32	3	55
All Other Managers and Administrators	10	.09	24	2
Professional, Paraprofessional, and Technical Occupations	120	1.08	na	na
Accountants and Auditors	50	.45	6	12
Purchasing Agents, except Wholesale, Retail, and Farm Products	20	.18	11	4
Industrial Engineers, except Safety	10	.09	21	2
Mechanical Engineers	10	.09	35	1
Drafters	10	.09	5	2
All Other Engineers and Related Occupations	10	.09	na	na
All Other Professional, Paraprofessional, and Technical Workers	10	.09	na	na
Sales and Related Occupations	90	.81	na	na
Sales Representatives, Scientific and Related Products and Services, except Retail	30	.27	12	5
Sales Representatives, except Scientific and Related Products or Services and Retail	50	.45	11	7
All Other Sales and Related Workers	10	.09	21	1
Clerical and Administrative Support Occupations	610	5.48	na	na
First Line Supervisors and Manager/Supervisors, Clerical and Administrative Support Occupations	10	.09	25	2
Secretaries	130	1.17	4	60
Receptionists and Information Clerks	10	.09	29	1
Order Clerks, Materials, Merchandise, and Service	10	.09	30	2
Bookkeeping, Accounting, and Auditing Clerks	140	1.26	4	35
Payroll and Timekeeping Clerks	10	.09	23	2
Billing, Cost, and Rate Clerks	10	.09	23	2
General Office Clerks	160	1.44	4	27
Billing, Posting, and Calculating Machine Operators	10	.09	33	1
Computer Operators, except Peripheral Equipment	10	.09	28	1
Production, Planning, and Expediting Clerks	10	.09	22	2
Stock Clerks, Stockroom, Warehouse, or Storage Yard	20	.18	18	2
Traffic, Shipping, and Receiving Clerks	70	.63	11	12
All Other Clerical and Administrative Support Occupations	10	.09	na	na
Service Occupations	300	2.70	na	na
Guards and Watch Guards	110	.99	7	9
Food and Beverage Preparation and Service Occupations	30	.27	0	3
Janitors and Cleaners, except Maids and Housekeeping Cleaners	150	1.35	8	18
All Other Cleaning and Building Service Workers, except Private Households	10	.09	na	na
Agricultural, Forestry, Fishing, and Related Occupations	2,030	18.24	na	na
First Line Supervisors, Agricultural, Forestry, Fishing, and Related Occupations	110	.99	4	17
Fallers and Buckers	710	6.38	2	39
Choke Setters	20	.18	13	2

SIC 24 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Log Handling Equipment Operators	260	2.34	5	30
Logging Tractor Operators	710	6.38	2	40
All Other Timber Cutting and Related Logging Workers	10	.09	42	1
Forest and Conservation Workers	30	.27	0	1
Log Graders and Scalers	150	1.35	8	19
All Other Agricultural, Forestry, Fishing, and Related Occupations	30	.27	na	na
Production, Construction, Operating, Maintenance, and Material Handling Occupations	7,510	67.48	na	na
First Line Supervisors and Manager/Supervisors, Mechanics, Installers, and Repairers	20	.18	17	3
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	370	3.32	4	34
All Other First Line Supervisors and Manager/Supervisors, Production, Construction, Maintenance, and Related	10	.09	na	na
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	260	2.34	14	17
Machinery Maintenance Mechanics	100	.90	9	12
Millwrights	60	.54	24	1
Machinery Maintenance Workers	60	.54	8	8
Maintenance Repairers, General Utility	300	2.69	5	28
Automotive Mechanics	20	.18	33	3
Bus and Truck Mechanics and Diesel Engine Specialists	10	.09	30	1
Mobile Heavy Equipment Mechanics, except Engines	90	.81	4	12
Carpenters	250	2.24	10	8
Electricians	30	.27	11	3
Machinists	30	.27	25	2
Tool Grinders, Filers, Sharpeners, and Other Precision Grinders	50	.45	14	4
All Other Precision Metal Workers	10	.09	na	na
Wood Machinists	290	2.60	21	12
Cabinetmakers and Bench Carpenters	110	.99	10	5
All Other Precision Workers	100	.90	na	na
Sawing Machine Setters and Setup Operators	90	.81	22	7
Head Sawyers	170	1.53	6	24
Sawing Machine Operators and Tenders	790	7.09	7	34
Woodworking Machine Setters and Setup Operators, except Sawing	270	2.43	7	17
Woodworking Machine Operators and Tenders, except Sawing	1,050	9.43	13	21
Furnace, Kiln, Oven, Drier, or Kettle Operators and Tenders	50	.45	13	7
Boiler Operators and Tenders, Low Pressure	70	.63	15	3
Cutting and Slicing Machine Operators and Tenders	10	.09	10	1
Coating, Painting, and Spraying Machine Setters and Setup Operators	40	.36	17	6
Coating, Painting, and Spraying Machine Operators and Tenders	40	.36	12	5
Cementing and Gluing Machine Operators and Tenders	30	.27	13	3
Packaging and Filling Machine Operators and Tenders	70	.63	14	4
All Other Machine Operators and Tenders	30	.27	na	na
Grinding and Polishing Workers, Hand	30	.27	29	1
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	60	.54	15	2
All Other Hand Workers	40	.36	na	na
Plant and System Occupations	10	.09	na	na
Truck Drivers, Heavy or Tractor Trailer	460	4.13	3	17
Truck Drivers, Light, including Delivery and Route Workers	10	.09	33	1
Grader, Dozer, and Scraper Operators	20	.18	12	2
Industrial Truck and Tractor Operators	220	1.98	5	24
Conveyor Operators and Tenders	10	.09	27	1
All Other Material Moving Equipment Operators	20	.18	na	na
Construction Trades and Extractive Worker Helpers	30	.27	13	3
Machine Feeders and Offbearers	780	7.01	14	20
Freight, Stock, and Material Movers, Hand	200	1.80	8	10
Hand Packers and Packagers	280	2.52	11	14
All Other Helpers, Laborers, and Material Movers, Hand	460	4.13	na	na

FURNITURE AND FIXTURES
SIC 25
May 1983

This major group includes establishments engaged in manufacturing household, office, public building, and restaurant furniture; and office and store fixtures.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	910	100.00	na	na
Managerial and Administrative Occupations	40	4.40	na	na
General Managers and Top Executives	30	3.30	4	74
All Other Managers and Administrators	10	1.10	na	na
Professional, Paraprofessional, and Technical Occupations	60	6.59	na	na
Purchasing Agents, except Wholesale, Retail, and Farm Products	10	1.10	0	16
All Other Management Support Workers	10	1.10	na	na
Engineers and Related Occupations	10	1.10	na	na
Drafters	30	3.30	0	21
Sales and Related Occupations	10	1.10	na	na
Sales Representatives, except Scientific and Related Products or Services and Retail	10	1.10	25	21
Clerical and Administrative Support Occupations	80	8.79	na	na
Secretaries	30	3.30	8	58
Bookkeeping, Accounting, and Auditing Clerks	20	2.20	9	47
General Office Clerks	10	1.10	14	26
Electronic Data Processing and Other Office Machine Occupations	10	1.10	na	na
Traffic, Shipping, and Receiving Clerks	10	1.10	9	37
Service Occupations	20	2.20	na	na
Protective Service Occupations	10	1.10	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	10	1.10	12	26
Production, Construction, Operating, Maintenance, and Material Handling Occupations	700	76.92	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	60	6.59	2	63
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	10	1.10	24	16
Maintenance Repairers, General Utility	10	1.10	9	32
Carpenters	20	2.20	36	16
Wood Machinists	30	3.30	9	26
Cabinetmakers and Bench Carpenters	90	9.89	8	63
All Other Precision Wood Workers	10	1.10	na	na
Selected Machine Forming Setters, Operators, and Related Workers, Metal and Plastic	20	2.20	na	na
Selected Metal Fabricating and Related Machine Setters, Operators, and Other Related Workers	30	3.30	na	na
Sawing Machine Operators and Tenders	50	5.49	6	32
Woodworking Machine Setters and Setup Operators, except Sawing	40	4.40	10	53
Woodworking Machine Operators and Tenders, except Sawing	30	3.30	11	37
Sewing Machine Operators, Nongarment	10	1.10	25	16
Coating, Painting, and Spraying Machine Operators and Tenders	20	2.20	16	32
Cementing and Gluing Machine Operators and Tenders	10	1.10	2	16
All Other Machine Operators and Tenders	10	1.10	na	na
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	70	7.69	5	53
All Other Hand Workers	40	4.40	na	na
Truck Drivers, Heavy or Tractor Trailer	10	1.10	13	21
Freight, Stock, and Material Movers, Hand	10	1.10	8	16
Hand Packers and Packagers	10	1.10	8	16
All Other Helpers, Laborers, and Material Movers, Hand	110	12.09	na	na

PRINTING, PUBLISHING, AND ALLIED INDUSTRIES
SIC 27
May 1983

This major group includes establishments engaged in printing by one or more of the common processes, such as letterpress, lithography, gravure, or screen; and those establishments which perform services for printing trade, such as bookbinding, typesetting, engraving, photoengraving, and electrotyping. This major group also includes establishments engaged in publishing newspapers, books, and periodicals, regardless of whether or not they do their own printing.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	4,250	100.00	na	na
Managerial and Administrative Occupations	280	6.59	na	na
Financial Managers	10	.24	11	5
Personnel, Training, and Labor Relations Managers	10	.24	28	3
Marketing, Advertising, and Public Relations Managers	20	.47	6	7
Industrial Production Managers	10	.24	19	4
General Managers and Top Executives	220	5.18	3	74
All Other Managers and Administrators	10	.24	na	na
Professional, Paraprofessional, and Technical Occupations	620	14.59	na	na
Purchasing Agents, except Wholesale, Retail, and Farm Products	10	.24	24	4
Engineering and Related Technicians and Technologists	20	.47	na	na
Systems Analysts, Electronic Data Processing	10	.24	30	4
Computer Programmers	20	.47	28	5
Writers and Editors	200	4.70	10	38
Reporters and Correspondents	270	6.35	8	24
Photographers	40	.94	4	9
Artists and Related Workers	40	.94	24	8
All Other Selected Writers, Artists, Entertainers, Athletes, and Related Occupations	10	.24	na	na
Sales and Related Occupations	390	9.18	na	na
First Line Supervisors and Manager/Supervisors, Sales and Related Occupations	50	1.18	16	6
Sales Agents, Advertising	100	2.35	7	6
Sales Representatives, Scientific and Related Products and Services, except Retail	70	1.65	27	12
Sales Representatives, except Scientific and Related Products or Services and Retail	150	3.53	10	40
All Other Sales and Related Workers	20	.47	na	na
Clerical and Administrative Support Occupations	1,060	24.94	na	na
First Line Supervisors and Manager/Supervisors, Clerical and Administrative Support Occupations	20	.47	11	6
Advertising Clerks	70	1.65	25	6
Proofreaders and Copy Markers	70	1.65	7	29
Secretaries	110	2.58	9	47
Typists	10	.24	18	3
Typists, Word Processing Equipment	40	.94	10	15
Bookkeeping, Accounting, and Auditing Clerks	120	2.82	4	58
Payroll and Timekeeping Clerks	10	.24	31	2
Billing, Cost, and Rate Clerks	30	.71	24	5
General Office Clerks	170	4.00	18	37
Computer Operators, except Peripheral Equipment	10	.24	31	2
Data Keyers, Composing	90	2.12	11	22
All Other Office Machine Operators	150	3.53	na	na
Switchboard Operators	20	.47	12	4
Mail Clerks, except Mail Machine Operators and Postal Service	40	.94	9	8
Messengers	10	.24	27	2
Stock Clerks, Stockroom, Warehouse, or Storage Yard	20	.47	21	5
Traffic, Shipping, and Receiving Clerks	50	1.18	14	13
All Other Clerical and Administrative Support Workers	20	.47	na	na

SIC 27 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Service Occupations	60	1.41	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	60	1.41	8	18
Production, Construction, Operating, Maintenance, and Material Handling Occupations	1,840	43.29	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	140	3.29	6	38
Maintenance Repairers, General Utility	10	.24	22	5
Precision Compositors, Typesetters, and Arrangers	90	2.12	31	17
Job Printers	60	1.41	12	22
Precision Lithography and Photoengraving Workers	150	3.53	9	28
All Other Precision Printing Workers	20	.47	na	na
Precision Detail Design Decorators and Painters	30	.71	22	9
All Other Precision Workers	100	2.35	na	na
Offset Lithographic Press Setters and Setup Operators	160	3.76	13	31
Letterpress Setters and Setup Operators	70	1.65	24	13
Photoengraving and Lithographing Photographers	60	1.41	11	23
Bindery Machine Setters and Setup Operators	60	1.41	22	13
Typesetting and Composing Machine Operators and Tenders	190	4.47	19	35
Printing Press Machine Operators and Tenders	270	6.35	13	30
Bindery Machine Operators	80	1.88	10	17
All Other Printing, Binding, and Related Machine Operators and Tenders	80	1.88	na	na
All Other Machine Operators and Tenders	10	.24	na	na
Other Hand Workers	30	.71	na	na
Truck Drivers, Light, including Delivery and Route Workers	30	.71	12	14
All Other Motor Vehicle Operators	20	.47	na	na
Freight, Stock, and Material Movers, Hand	90	2.12	34	9
All Other Helpers, Laborers, and Material Movers, Hand	90	2.12	na	na

CHEMICALS AND ALLIED PRODUCTS
SIC 28
June 1983

This major group includes establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	950	100.00	na	na
Managerial and Administrative Occupations	100	10.53	na	na
General Managers and Top Executives	50	5.26	3	89
All Other Managers and Administrators	50	5.26	na	na
Professional, Paraprofessional, and Technical Occupations	150	15.79	na	na
Accountants and Auditors	20	2.11	6	28
Chemical Engineers	10	1.05	2	17
All Other Engineers	10	1.05	na	na
Chemists, except Biochemists	40	4.21	1	33
All Other Life Scientists	10	1.05	na	na
Chemical Technicians and Technologists, except Health	40	4.21	2	28
All Other Physical and Life Science Technicians and Technologists	20	2.11	na	na
Sales and Related Occupations	40	4.21	na	na
Sales Representatives, Scientific and Related Products and Services, except Retail	30	3.16	16	56
All Other Sales and Related Workers	10	1.05	na	na
Clerical and Administrative Support Occupations	120	12.63	na	na
Secretaries	30	3.16	6	56
Bookkeeping, Accounting, and Auditing Clerks	20	2.11	5	61
General Office Clerks	10	1.05	14	28
Electronic Data Processing and Other Office Machine Occupations	10	1.05	na	na
Stock Clerks, Stockroom, Warehouse, or Storage Yard	10	1.05	1	28
Traffic, Shipping, and Receiving Clerks	10	1.05	14	39
All Other Clerical and Administrative Support Workers	30	3.16	na	na
Production, Construction, Operating, Maintenance, and Material Handling Occupations	540	56.84	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	50	5.26	3	67
All Other First Line Supervisors and Manager/Supervisors, Production, Construction, Maintenance, and Related	10	1.05	na	na
Maintenance Repairers, General Utility	90	9.47	2	56
Construction Trades and Extractive Occupations, except Material Moving	30	3.16	na	na
Chemical Equipment Controllers and Operators	60	6.32	1	22
Chemical Equipment Tenders	20	2.11	6	17
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	60	6.32	14	39
Packaging and Filling Machine Operators and Tenders	60	6.32	2	28
All Other Machine Operators and Tenders	40	4.21	na	na
Other Handworkers, including Assemblers and Fabricators	40	4.21	na	na
Chemical Plant and System Operators	20	2.11	12	17
Truck Drivers, Heavy or Tractor Trailer	10	1.05	20	17
Material Moving Equipment Operators	10	1.05	na	na
Helpers, Laborers, and Material Movers, Hand, excluding Agriculture and Forestry Laborers	40	4.21	na	na

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
SIC 30
June 1983

This major group includes establishments manufacturing rubber products such as tires, rubber footwear, mechanical rubber goods, heels and soles, flooring, and rubber sundries from natural, synthetic, or reclaimed rubber, gutta, percha, balata, or gutta siak.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	4,290	100.00	na	na
Managerial and Administrative Occupations	140	3.26	na	na
Financial Managers	10	.23	15	16
Personnel, Training, and Labor Relations Managers	10	.23	23	19
Marketing, Advertising, and Public Relations Managers	10	.23	3	9
Industrial Production Managers	30	.70	2	22
General Managers and Top Executives	60	1.40	8	88
All Other Managers and Administrators	20	.47	na	na
Professional, Paraprofessional, and Technical Occupations	230	5.36	na	na
Accountants and Auditors	20	.47	35	25
Purchasing Agents, except Wholesale, Retail, and Farm Products	10	.23	36	16
Personnel, Training, and Labor Relations Specialists	10	.23	21	9
Cost Estimators	10	.23	31	9
All Other Management Support Workers	10	.23	31	9
Chemical Engineers	20	.47	47	13
Industrial Engineers, except Safety	20	.47	38	16
Mechanical Engineers	30	.70	20	9
All Other Engineers	10	.23	na	na
Engineering and Related Technicians and Technologists	30	.70	na	na
Chemical Technicians and Technologists, except Health	20	.47	35	16
All Other Physical and Life Science Technicians and Technologists	10	.23	na	na
Systems Analysts, Electronic Data Processing	10	.23	36	11
Computer Programmers	10	.23	40	8
All Other Professional, Paraprofessional, and Technical Workers	10	.23	na	na
Sales and Related Occupations	40	.93	na	na
First Line Supervisors and Manager/Supervisors, Sales and Related Occupations	10	.23	31	13
Sales Representatives, Scientific and Related Products and Services, except Retail	10	.23	17	16
Sales Representatives, except Scientific and Related Products or Services and Retail	10	.23	8	13
All Other Sales and Related Workers	10	.23	na	na
Clerical and Administrative Support Occupations	290	6.76	na	na
First Line Supervisors and Manager/Supervisors, Clerical and Administrative Support Occupations	10	.23	6	9
Secretaries	40	.93	15	44
Order Clerks, Materials, Merchandise, and Service	10	.23	20	13
Procurement Clerks	10	.23	19	9
Bookkeeping, Accounting, and Auditing Clerks	30	.70	7	50
Payroll and Timekeeping Clerks	20	.47	6	25
Billing, Cost, and Rate Clerks	10	.23	4	13
General Office Clerks	20	.47	9	38
Computer Operators, except Peripheral Equipment	10	.23	6	19
Data Entry Keyers, except Composing	10	.23	33	9
Switchboard Operators	10	.23	7	16
Production, Planning, and Expediting Clerks	50	1.17	11	22
Stock Clerks, Stockroom, Warehouse, or Storage Yard	10	.23	47	13
Traffic, Shipping, and Receiving Clerks	40	.93	7	59
All Other Clerical and Administrative Support Occupations	10	.23	na	na

SIC 30 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Service Occupations	20	.47	na	na
Protective Service Occupations	10	.23	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	10	.23	27	25
Production, Construction, Operating, Maintenance, and Material Handling Occupations	3,570	83.22	na	na
First Line Supervisors and Manager/Supervisors, Mechanics, Installers, and Repairers	20	.47	11	9
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	150	3.50	11	72
All Other First Line Supervisors and Manager/Supervisors, Production, Construction, Maintenance, and Related	10	.23	na	na
Precision Inspectors, Testers, and Graders	20	.47	20	13
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	150	3.50	24	22
Machinery Maintenance Mechanics	80	1.86	31	34
Maintenance Repairers, General Utility	20	.47	15	31
Other Selected Machinery and Related Mechanics, Installers, and Repairers	40	.93	na	na
All Other Mechanics, Installers, and Repairers	10	.23	na	na
Electricians	40	.93	41	16
Plumbers, Pipefitters, and Steamfitters	10	.23	24	9
Machinists	50	1.17	15	28
All Other Precision Metal Workers	30	.70	na	na
Machine Forming Operators and Tenders, Metal and Plastic	20	.47	0	9
Other Selected Machine Forming Setters, Operators, and Related Workers, Metal and Plastic	80	1.86	na	na
Numerical and Combination Machine Tool Setters, Operators, and Related Workers, Metal and Plastic	10	.23	na	na
Plastic Molding and Casting Machine Setters and Setup Operators	50	1.17	18	22
Plastic Molding and Casting Machine Operators and Tenders	460	10.72	29	41
All Other Metal and Plastic (Cut, Form, Fabricate, or Process) Machine Operators and Tenders	90	2.10	na	na
Selected Textile and Related Setters, Operators, and Other Related Workers	190	4.43	na	na
Cutting and Slicing Machine Operators and Tenders	50	1.17	6	25
Coating, Painting, and Spraying Machine Operators and Tenders	20	.47	18	9
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	50	1.17	20	22
Extruding, Forming, Pressing, and Compacting Machine Setters and Setup Operators	60	1.40	17	19
Extruding, Forming, Pressing, and Compacting Machine Operators and Tenders	30	.70	13	13
Packaging and Filling Machine Operators and Tenders	50	1.17	16	28
All Other Machine Operators and Tenders	220	5.13	na	na
Welders and Cutters	20	.47	7	9
Cutters and Trimmers, Hand	40	.93	10	16
Painting, Coating, and Decorating Workers, Hand	40	.93	10	19
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	480	11.19	30	47
All Other Hand Workers	20	.47	na	na
Plant and System Occupations	20	.47	na	na
Truck Drivers, Heavy or Tractor Trailer	60	1.40	4	25
Truck Drivers, Light, including Delivery and Route Workers	10	.23	5	13
Industrial Truck and Tractor Operators	80	1.86	9	22
Machine Feeders and Offbearers	80	1.86	5	28
Freight, Stock, and Material Movers, Hand	70	1.63	45	28
Hand Packers and Packagers	150	3.50	19	22
All Other Helpers, Laborers, and Material Movers, Hand	490	11.42	na	na

LEATHER AND LEATHER PRODUCTS
SIC 31
APRIL 1983

This major group includes establishments engaged in tanning, currying, and finishing hides and skins, and establishments manufacturing finished leather and artificial leather products, and some similar products made of other materials.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	20,810	100.00	na	na
Managerial and Administrative Occupations	400	1.92	na	na
Financial Managers	30	.14	11	27
Personnel, Training, and Labor Relations Managers	40	.19	14	25
Purchasing Managers	40	.19	12	25
Marketing, Advertising, and Public Relations Managers	10	.05	23	7
Administrative Service Managers	20	.10	18	12
Industrial Production Managers	80	.38	14	28
General Managers and Top Executives	160	.77	17	75
All Other Managers and Administrators	20	.10	17	9
Professional, Paraprofessional, and Technical Occupations	250	1.20	na	na
Accountants and Auditors	30	.14	9	16
Purchasing Agents, except Wholesale, Retail, and Farm Products	40	.19	13	22
Personnel, Training, and Labor Relations Specialists	10	.05	29	6
Cost Estimators	10	.05	35	4
All Other Management Support Workers	20	.10	42	4
Industrial Engineers, except Safety	30	.14	13	24
Mechanical Engineers	10	.05	30	4
Industrial Engineering Technicians and Technologists	10	.05	21	9
Drafters	10	.05	32	4
Systems Analysts, Electronic Data Processing	10	.05	23	6
Computer Programmers	20	.10	38	9
Other Computer Scientists and Related Workers	10	.05	na	na
Teachers, Educators, Librarians, and Related Occupations	20	.10	na	na
Health Practitioners, Technologists, Technicians, and Related Health Occupations	10	.05	22	7
Designers, except Interior Designers	10	.05	25	7
Sales and Related Occupations	70	.34	na	na
First Line Supervisors and Manager/Supervisors, Sales and Related Occupations	20	.10	34	6
Sales Representatives, except Scientific and Related Products or Services and Retail	40	.19	17	16
All Other Sales and Related Workers	10	.05	26	4
Clerical and Administrative Support Occupations	1,160	5.57	na	na
First Line Supervisors and Manager/Supervisors, Clerical and Administrative Support Occupations	70	.34	10	33
Secretaries	30	.14	13	28
Receptionists and Information Clerks	20	.10	11	19
Typists	10	.05	14	9
Personnel Clerks, except Payroll and Timekeeping	30	.14	8	24
Order Clerks, Materials, Merchandise, and Service	30	.14	26	22
Procurement Clerks	20	.10	30	13
Bookkeeping, Accounting, and Auditing Clerks	70	.34	9	42
Payroll and Timekeeping Clerks	110	.53	7	57
Billing, Cost, and Rate Clerks	40	.19	24	24
General Office Clerks	110	.53	7	54
Other Secretarial Related and General Office Workers	10	.05	na	na
Billing, Posting, and Calculating Machine Operators	10	.05	27	4
Computer Operators, except Peripheral Equipment	30	.14	14	15
Data Entry Keyers, except Composing	30	.14	42	19
Switchboard Operators	30	.14	7	31
Production, Planning, and Expediting Clerks	60	.29	11	28

SIC 31 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Stock Clerks, Stockroom, Warehouse, or Storage Yard	170	.82	30	18
Traffic, Shipping, and Receiving Clerks	150	.72	8	51
All Other Material Recording, Scheduling, and Distributing Workers	70	.34	na	na
All Other Clerical and Administrative Support Workers	60	.29	na	na
Service Occupations	200	.96	na	na
First Line Supervisors and Manager/Supervisors, Service	20	.10	35	6
Guards and Watch Guards	60	.29	10	21
Janitors and Cleaners, except Maids and Housekeeping Cleaners	90	.43	7	54
Elevator Operators	20	.10	18	7
All Other Cleaning and Building Service Workers, except Private Households	10	.05	27	4
Production, Construction, Operating, Maintenance, and Material Handling Occupations	18,730	90.00	na	na
First Line Supervisors and Manager/Supervisors, Mechanics, Installers, and Repairers	10	.05	11	18
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	450	2.16	6	60
First Line Supervisors and Manager/Supervisors, Transportation and Material Moving Machine and Vehicle Occupations	20	.10	32	6
First Line Supervisors and Manager/Supervisors, Helpers, Laborers, and Material Movers, Hand	20	.10	19	12
Precision Inspectors, Testers, and Graders	80	.38	28	6
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	450	2.16	16	42
Machinery Maintenance Mechanics, Sewing Machines	90	.43	8	36
All Other Machinery Maintenance Mechanics	30	.14	33	10
Machinery Maintenance Workers	40	.19	12	16
Maintenance Repairers, General Utility	120	.58	18	55
Other Selected Machinery and Related Mechanics, Installers, and Repairers	20	.10	na	na
All Other Mechanics, Installers, and Repairers	100	.48	na	na
Carpenters	10	.05	16	9
Electricians	20	.10	8	13
Plumbers, Pipefitters, and Steamfitters	10	.05	5	4
Machinists	20	.10	21	4
Shoe and Leather Workers and Repairers, Precision	1,450	6.97	19	39
All Other Precision Textile, Apparel and Furnishings Workers	60	.29	na	na
All Other Precision Workers	10	.05	na	na
Plastic Molding and Casting Machine Setters and Setup Operators	60	.29	25	6
Plastic Molding and Casting Machine Operators and Tenders	50	.24	25	7
All Other Metal and Plastic (Cut, Form, Fabricate, or Process) Machine Setters and Setup Operators	20	.10	26	4
All Other Metal and Plastic (Cut, Form, Fabricate, or Process) Machine Operators and Tenders	20	.10	na	na
Specialty Materials Printing Machine Setters and Setup Operators	10	.05	27	4
All Other Printing Related Setters and Setup Operators	10	.05	31	4
Printing Press Machine Operators and Tenders	120	.58	30	4
Sewing Machine Operators, Nongarment	260	1.25	1	4
Shoe Sewing Machine Operators and Tenders	4,290	20.62	6	63
Other Selected Textile and Related Setters, Operators, and Other Related Workers	260	1.25	na	na
Furnace, Kiln, Oven, Drier, or Kettle Operators and Tenders	20	.10	39	4
Cutting and Slicing Machine Setters and Setup Operators	230	1.11	26	21
Cutting and Slicing Machine Operators and Tenders	1,080	5.19	23	31
Coating, Painting, and Spraying Machine Setters and Setup Operators	30	.14	6	6
Coating, Painting, and Spraying Machine Operators and Tenders	80	.38	16	19
Cementing and Gluing Machine Operators and Tenders	910	4.37	8	52
Cleaning, Washing, and Pickling Equipment Operators and Tenders	230	1.11	34	9
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	80	.38	10	12
Extruding, Forming, Pressing, and Compacting Machine Operators and Tenders	110	.53	28	4
Packaging and Filling Machine Operators and Tenders	70	.34	23	9
All Other Machine Operators and Tenders	1,450	6.97	na	na
Pressers, Hand	10	.05	16	6
Sewers, Hand	1,070	5.14	25	25
Cutters and Trimmers, Hand	300	1.44	17	43
Portable Machine Cutters	40	.19	30	7
Painting, Coating, and Decorating Workers, Hand	70	.34	21	15

SIC 31 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	320	1.54	44	27
All Other Hand Workers	1,210	5.81	20	30
Water and Liquid Waste Treatment Plant and System Operators	10	.05	3	6
Truck Drivers, Heavy or Tractor Trailer	40	.19	9	21
Truck Drivers, Light, including Delivery and Route Workers	30	.14	14	18
Industrial Truck and Tractor Operators	30	.14	25	10
Conveyor Operators and Tenders	30	.14	16	12
Mechanic and Repairer Helpers	10	.05	26	4
Machine Feeders and Offbearers	100	.48	10	19
Freight, Stock, and Material Movers, Hand	210	1.01	24	37
Hand Packers and Packagers	660	3.17	21	48
All Other Helpers, Laborers, and Material Movers, Hand	2,190	10.52	na	na

STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
SIC 32 1/
May 1983

This major group includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete and gypsum products, cut stone, abrasive and asbestos products, etc., from materials taken principally from the earth in the form of stone, clay, and sand.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	890	100.00	na	na
Managerial and Administrative Occupations	60	6.74	na	na
General Managers and Top Executives	60	6.74	7	66
Professional, Paraprofessional, and Technical Occupations	10	1.12	na	na
Accountants and Auditors	10	1.12	29	9
Sales and Related Occupations	30	3.37	na	na
Sales Representatives, Scientific and Related Products and Services, except Retail	10	1.12	17	6
Sales Representatives, except Scientific and Related Products or Services and Retail	20	2.25	17	19
Clerical and Administrative Support Occupations	100	11.24	na	na
Secretaries	20	2.25	12	28
Bookkeeping, Accounting, and Auditing Clerks	30	3.37	10	40
General Office Clerks	20	2.25	17	21
Dispatchers, except Police, Fire, and Ambulance	20	2.25	11	30
Traffic, Shipping, and Receiving Clerks	10	1.12	11	9
Service Occupations	10	1.12	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	10	1.12	24	6
Production, Construction, Operating, Maintenance, and Material Handling Occupations	680	76.40	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	50	5.62	8	53
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	10	1.12	13	6
Machinery Maintenance Mechanics	10	1.12	15	13
Maintenance Repairers, General Utility	20	2.25	12	26
Automotive Mechanics	10	1.12	24	9
Bus and Truck Mechanics, and Diesel Engine Specialists	10	1.12	24	11
Concrete and Terrazza Finishers	40	4.49	13	13
Precision Molders, Shapers, Casters, and Carvers, except Jewelry and Foundry	20	2.25	27	13
Furnace, Kiln, Oven, Drier, or Kettle Operators and Tenders	20	2.25	6	9
Cutting and Slicing Machine Setters and Setup Operators	10	1.12	12	6
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	10	1.12	18	13
Extruding, Forming, Pressing, and Compacting Machine Setters and Setup Operators	10	1.12	29	9
Extruding, Forming, Pressing, and Compacting Machine Operators and Tenders	10	1.12	30	6
All Other Machine Operators and Tenders	10	1.12	na	na
Welders and Cutters	20	2.25	18	9
Molders and Casters, Hand	30	3.37	24	15
All Other Hand Workers	10	1.12	na	na
Plant and System Occupations	10	1.12	na	na
Truck Drivers, Heavy or Tractor Trailer	180	20.22	8	53
Truck Drivers, Light, including Delivery and Route Workers	50	5.62	16	26
Grader, Dozer, and Scraper Operators	10	1.12	28	9
Crane and Tower Operators	10	1.12	26	9
Industrial Truck and Tractor Operators	50	5.62	10	45
Operating Engineers	10	1.12	32	6
All Other Material Moving Equipment Operators	10	1.12	na	na
Machine Feeders and Offbearers	10	1.12	22	6
Freight, Stock, and Material Movers, Hand	30	3.37	20	13
All Other Helpers, Laborers, and Material Movers, Hand	10	1.12	na	na

1/ Excludes SIC 324 - Cement, Hydraulic

FABRICATED METAL PRODUCTS, EXCEPT
MACHINERY AND TRANSPORTATION EQUIPMENT
SIC 34 1/
June 1983

This major group includes establishments engaged in fabricating ferrous and nonferrous metal products such as metal cans, tinware, hand tools, cutlery, general hardware, nonelectric heating apparatus, fabricated structural metal products, metal forgings, metal stampings, and a variety of metal and wire products not elsewhere classified.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	2,350	100.00	na	na
Managerial and Administrative Occupations	180	7.66	na	na
Personnel, Training, and Labor Relations Managers	10	.43	9	7
Industrial Production Managers	10	.43	0	5
General Managers and Top Executives	150	6.38	4	87
All Other Managers and Administrators	10	.43	na	na
Professional, Paraprofessional, and Technical Occupations	170	7.23	na	na
Accountants and Auditors	30	1.28	7	28
Purchasing Agents, except Wholesale, Retail, and Farm Products	10	.43	11	10
Cost Estimators	10	.43	0	5
All Other Management Support Workers	10	.43	na	na
Industrial Engineers, except Safety	10	.43	9	7
Mechanical Engineers	40	1.70	18	23
Drafters	50	2.13	4	30
All Other Engineering and Related Technicians and Technologists	10	.43	na	na
Sales and Related Occupations	50	2.13	na	na
Sales Representatives, Scientific and Related Products and Services, except Retail	20	.85	14	15
Sales Representatives, except Scientific and Related Products or Services and Retail	30	1.28	16	23
Clerical and Administrative Support Occupations	240	10.21	na	na
Secretaries	60	2.55	6	66
Order Clerks, Materials, Merchandise, and Service	10	.43	11	7
Bookkeeping, Accounting, and Auditing Clerks	60	2.55	6	52
Payroll and Timekeeping Clerks	10	.43	8	5
Billing, Cost, and Rate Clerks	10	.43	15	5
General Office Clerks	40	1.70	9	36
Switchboard Operators	10	.43	12	5
Production, Planning, and Expediting Clerks	10	.43	0	5
Traffic, Shipping, and Receiving Clerks	10	.43	11	11
All Other Clerical and Administrative Support Workers	20	.85	na	na
Service Occupations	40	1.70	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	40	1.70	6	26
Production, Construction, Operating, Maintenance, and Material Handling Occupations	1,670	71.06	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	110	4.68	4	59
Precision Inspectors, Testers, and Graders	30	1.28	14	16
Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers	20	.85	5	13
Machinery Maintenance Mechanics	20	.85	4	5
Millwrights	10	.43	9	5
Maintenance Repairers, General Utility	40	1.70	8	21
Electricians	10	.43	16	7
All Other Construction Trades Workers	30	1.28	na	na
Tool and Die Makers	90	3.83	9	20
Machinists	70	2.98	11	28
Tool Grinders, Filers, Sharpeners, and Other Precision Grinders	20	.85	20	10
Pattern and Model Makers, Metal	50	2.13	18	7
Precision Layout Workers, Metal	20	.85	10	5
Sheet Metal Workers	100	4.26	16	21
Sawing Machine Tool Setters and Setup Operators, Metal and Plastic	10	.43	3	7

SIC 34 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Drilling and Boring Machine Tool Setters and Setup Operators, Metal and Plastic	40	1.70	7	11
Machine Tool Cutting Operators and Tenders, Metal and Plastic	40	1.70	10	8
Other Selected Machine Tool Cutting Setters, Operators, and Related Workers, Metal and Plastic	10	.43	na	na
Punch Machine Setters and Setup Operators, Metal and Plastic	30	1.28	19	11
Press and Press Brake Machine Setters and Setup Operators, Metal and Plastic	30	1.28	13	10
Shear and Slitter Machine Setters and Setup Opertors, Metal and Plastic	30	1.28	9	11
Machine Forming Operators and Tenders, Metal and Plastic	40	1.70	15	13
Other Selected Machine Forming Setters, Operators, and Related Workers, Metal and Plastic	50	2.13	na	na
Combination Machine Tool Setters and Setup Operators, Metal and Plastic	30	1.28	15	13
Other Numerical and Combination Machine Tool Setters, Operators, and Related Workers, Metal and Plastic	10	.43	na	na
Welding Machine Setters and Setup Operators	50	2.13	16	21
Welding Machine Operators and Tenders	10	.43	13	5
Metal Fabricators, Structural Metal Products	130	5.53	9	26
Heating Equipment Setters and Setup Operators, Metal and Plastic	20	.85	11	5
Other Selected Metal and Plastic Processing Machine Setters, Operators, and Related Workers	60	2.55	na	na
All Other Metal and Plastic (Cut, Form, Fabricate, or Process) Machine Operators and Tenders	20	.85	na	na
Coating, Painting, and Spraying Machine Setters and Setup Operators	20	.85	16	13
All Other Machine Operators and Tenders	30	1.28	na	na
Fitters, Structural Metal, Precision	30	1.28	5	7
Welders and Cutters	30	1.28	32	5
Grinding and Polishing Workers, Hand	30	1.28	18	11
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	100	4.26	15	15
Motor Vehicle Operators	10	.43	na	na
Crane and Tower Operators	10	.43	4	5
Industrial Truck and Tractor Operators	30	1.28	4	11
Machine Feeders and Offbearers	30	1.28	6	7
Freight, Stock, and Material Movers, Hand	50	2.13	8	28
Hand Packers and Packagers	30	1.28	8	11
All Other Helpers, Laborers, and Matrerial Movers, Hand	40	1.70	na	na

1/ Excludes SIC 348 - Ordnance and Accessories, except Motor Vehicles and Guided Missiles.

MACHINERY, EXCEPT ELECTRICAL
SIC 35
JUNE 1983

This major group includes establishments engaged in manufacturing machinery and equipment, other than electrical equipment and transportation equipment.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	3,570	100.00	na	na
Managerial and Administrative Occupations	220	6.16	na	na
Financial Managers	10	.28	10	8
Personnel, Training, and Labor Relations Managers	10	.28	0	9
Purchasing Managers	10	.28	9	9
Marketing, Advertising, and Public Relations Managers	10	.28	0	5
Industrial Production Managers	20	.56	1	13
General Managers and Top Executives	140	3.92	3	76
All Other Managers and Administrators	20	.56	na	na
Professional, Paraprofessional, and Technical Occupations	480	13.45	na	na
Accountants and Auditors	30	.84	5	21
Purchasing Agents, except Wholesale, Retail, and Farm Products	30	.84	3	30
Personnel, Training, and Labor Relations Specialists	10	.28	0	5
Cost Estimators	10	.28	13	5
All Other Management Support Workers	20	.56	na	na
Electrical and Electronic Engineers	50	1.40	2	13
Industrial Engineers, except Safety	40	1.12	4	16
Mechanical Engineers	60	1.68	4	36
All Other Engineers	10	.28	na	na
Electrical and Electronic Engineering Technicians and Technologists	100	2.80	1	9
Industrial Engineering Technicians and Technologists	10	.28	0	4
Mechanical Engineering Technicians and Technologists	10	.28	0	5
Drafters	60	1.68	2	32
Computer Programmers	20	.56	0	4
Programmers, Numerical, Tool, and Process Control	20	.56	4	9
Sales and Related Occupations	60	1.68	na	na
First Line Supervisors and Manager/Supervisors, Sales and Related Occupations	10	.28	0	4
Sales Engineers	10	.28	0	4
Sales Representatives, Scientific and Related Products and Services, except Retail	20	.56	9	14
Sales Representatives, except Scientific and Related Products or Services and Retail	20	.56	9	14
Clerical and Administrative Support Occupations	400	11.20	na	na
Secretaries	90	2.52	3	59
Bookkeeping, Accounting, and Auditing Clerks	60	1.68	5	50
General Office Clerks	40	1.12	9	26
Computer Operators, except Peripheral Equipment	10	.28	0	7
Data Entry Keyers, except Composing	10	.28	3	5
Switchboard Operators	10	.28	0	7
Production, Planning, and Expediting Clerks	30	.84	0	12
Stock Clerks, Stockroom, Warehouse, or Storage Yard	90	2.52	2	34
Traffic, Shipping, and Receiving Clerks	40	1.12	5	34
All Other Clerical and Administrative Support Workers	20	.56	na	na
Service Occupations	60	1.68	na	na
Protective Service Occupations	10	.28	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	50	1.40	5	41
Production, Construction, Operating, Maintenance, and Material Handling Occupations	2,350	65.83	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	170	4.76	2	66
All Other First Line Supervisors and Manager/Supervisors, Production, Construction, Maintenance, and Related	20	.56	na	na

SIC 35 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Precision Inspectors, Testers, and Graders	60	1.68	1	25
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	90	2.52	1	12
Machinery Maintenance Mechanics	10	.28	0	7
Machinery Maintenance Workers	10	.28	0	4
Maintenance Repairers, General Utility	60	1.68	3	32
All Other Electrical and Electronic Equipment Mechanics, Installers, and Repairers	10	.28	na	na
Carpenters	10	.28	34	4
Electricians	10	.28	0	5
Tool and Die Makers	90	2.52	7	21
Machinists	420	11.76	4	75
Tool Grinders, Filers, Sharpeners, and Other Precision Grinders	20	.56	1	8
Sheet Metal Workers	100	2.80	1	11
All Other Precision Workers	10	.28	na	na
Sawing Machine Tool Setters and Setup Operators, Metal and Plastic	10	.28	11	9
Lathe and Turning Machine Tool Setters and Setup Operators, Metal and Plastic	110	3.08	6	22
Drilling and Boring Machine Tool Setters and Setup Operators, Metal and Plastic	70	1.96	5	13
Milling and Planing Machine Setters and Setup Operators, Metal and Plastic	50	1.40	5	11
Grinding, Lapping, and Buffing Machine Tool Setters and Setup Operators, Metal and Plastic	110	3.08	3	13
Machine Tool Cutting Operators and Tenders, Metal and Plastic	10	.28	17	5
Punching Machine Setters and Setup Operators, Metal and Plastic	20	.56	0	5
Machine Forming Operators and Tenders, Metal and Plastic	10	.28	6	5
Other Selected Machine Forming Setters, Operators, and Related Workers, Metal and Plastic	10	.28	na	na
Numerical Control Machine Tool Operators and Tenders, Metal and Plastic	70	1.96	6	14
Combination Machine Tool Setters and Setup Operators, Metal and Plastic	30	.84	12	7
Welding Machine Setters and Setup Operators	60	1.68	4	22
Welding Machine Operators and Tenders	30	.84	18	5
Heating Equipment Setters and Setup Operators, Metal and Plastic	10	.28	2	4
Other Selected Metal and Plastic Processing Machine Setters, Operators, and Related Workers	10	.28	na	na
All Other Metal and Plastic (Cut, Form, Fabricate, or Process) Machine Setters and Setup Operators	10	.28	na	na
Coating, Painting, and Spraying Machine Setters and Setup Operators	10	.28	12	8
Coating, Painting, and Spraying Machine Operators and Tenders	20	.56	1	5
All Other Machine Operators and Tenders	30	.84	na	na
Machine Builders and Other Precision Machine Assemblers	60	1.68	14	11
Electrical and Electronic Equipment Assemblers, Precision	170	4.76	0	11
Machine Assemblers	40	1.12	16	11
Welders and Cutters	80	2.24	4	16
Grinding and Polishing Workers, Hand	20	.56	3	7
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	90	2.52	4	24
All Other Hand Workers	60	1.68	na	na
Truck Drivers, Light, including Delivery and Route Workers	10	.28	4	7
Industrial Truck and Tractor Operators	20	.56	1	9
Freight, Stock, and Material Movers, Hand	30	.84	6	12

ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT, AND SUPPLIES
SIC 36
JUNE 1983

This major group includes establishments engaged in manufacturing machinery, apparatus, and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	7,560	100.00	na	na
Managerial and Administrative Occupations	240	3.17	na	na
Financial Managers	20	.26	9	25
Personnel, Training, and Labor Relations Managers	20	.26	8	38
Purchasing Managers	20	.26	8	38
Marketing, Advertising, and Public Relations Managers	20	.26	6	28
Industrial Production Managers	50	.66	7	44
General Managers and Top Executives	60	.79	14	69
All Other Managers and Administrators	50	.66	6	31
Professional, Paraprofessional, and Technical Occupations	920	12.17	na	na
Accountants and Auditors	40	.53	6	47
All Other Financial Specialists	10	.13	na	na
Purchasing Agents, except Wholesale, Retail, and Farm Products	50	.66	16	47
Personnel, Training, and Labor Relations Specialists	20	.26	9	25
Cost Estimators	10	.13	0	9
All Other Management Support Workers	40	.53	31	13
Metallurgists and Metallurgical, Ceramic, and Materials Engineers	20	.26	10	13
Chemical Engineers	30	.40	8	9
Electrical and Electronic Engineers	170	2.25	6	47
Industrial Engineers, except Safety	40	.53	7	50
Mechanical Engineers	50	.66	4	44
All Other Engineers	60	.79	na	na
Electrical and Electronic Engineering Technicians and Technologists	130	1.72	9	56
Industrial Engineering Technicians and Technologists	10	.13	0	9
Mechanical Engineering Technicians and Technologists	10	.13	8	13
Drafters	40	.53	2	34
All Other Engineering and Related Technicians and Technologists	70	.93	na	na
Physical Scientists	10	.13	na	na
Chemical Technicians and Technologists, except Health	30	.40	7	9
Systems Analysts, Electronic Data Processing	20	.26	11	19
Computer Programmers	20	.26	16	22
Other Computer Scientists and Related Workers	10	.13	na	na
Health Practitioners, Technologists, Technicians, and Related Health Occupations	10	.13	6	19
All Other Professionals, Paraprofessionals, and Technical Workers	20	.26	na	na
Sales and Related Occupations	70	.93	na	na
First Line Supervisors and Manager/Supervisors, Sales and Related Occupations	30	.40	3	16
Sales Engineers	10	.13	6	9
Sales Representatives, Scientific and Related Products and Services, except Retail	20	.26	6	13
All Other Sales and Related Workers	10	.13	na	na
Clerical and Administrative Support Occupations	540	7.14	na	na
First Line Supervisors and Manager/Supervisors, Clerical and Administrative Support Occupations	10	.13	7	13
Secretaries	90	1.19	9	75
Receptionists and Information Clerks	10	.13	6	38
Personnel Clerks, except Payroll and Timekeeping	10	.13	7	28
File Clerks	10	.13	11	13
Order Clerks, Materials, Merchandise, and Service	20	.26	13	25
Procurement Clerks	20	.26	4	38
Bookkeeping, Accounting, and Auditing Clerks	20	.26	7	38
Payroll and Timekeeping Clerks	30	.40	4	41
Billing, Cost, and Rate Clerks	10	.13	0	19
General Office Clerks	20	.26	5	22

SIC 36 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Computer Operators, except Peripheral Equipment	20	.26	10	22
Data Entry Keyers, except Composing	20	.26	8	28
Switchboard Operators	10	.13	10	22
Production, Planning, and Expediting Clerks	90	1.19	4	53
Stock Clerks, Stockroom, Warehouse, or Storage Yard	60	.79	1	44
Traffic, Shipping, and Receiving Clerks	50	.66	7	66
All Other Material Recording, Scheduling, and Distributing Workers	40	.53	19	16
Service Occupations	60	.79	na	na
First Line Supervisors and Manager/Supervisors, Service	10	.13	7	13
Protective Service Occupations	10	.13	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	40	.53	5	56
Production, Construction, Operating, Maintenance, and Material Handling Occupations	5,730	75.79	na	na
First Line Supervisors and Manager/Supervisors, Mechanics, Installers, and Repairers	20	.26	10	19
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	320	4.23	14	88
First Line Supervisors and Manager/Supervisors, Transportation and Material Moving Machine and Vehicle Occupations	10	.13	10	13
Precision Inspectors, Testers, and Graders	330	4.37	10	53
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	290	3.84	9	50
Machinery Maintenance Mechanics	200	2.65	32	16
Millwrights	10	.13	23	13
Maintenance Repairers, General Utility	60	.79	9	56
Electronics Repairers, Commercial and Industrial Equipment	40	.53	20	13
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	10	.13	2	9
All Other Mechanics, Installers, and Repairers	10	.13	na	na
Electricians	20	.26	5	31
Tool and Die Makers	70	.93	10	31
Machinists	150	1.98	3	63
Tool Grinders, Filers, Sharpeners, and Other Precision Grinders	20	.26	0	13
Sheet Metal Workers	50	.66	0	16
Lathe and Turning Machine Tool Setters and Setup Operators, Metal and Plastic	50	.66	12	19
Drilling and Boring Machine Tool Setters and Setup Operators, Metal and Plastic	10	.13	15	9
Grinding, Lapping, and Buffing Machine Tool Setters and Setup Operators, Metal and Plastic	10	.13	0	9
Machine Tool Cutting Operators and Tenders, Metal and Plastic	90	1.19	0	13
Other Selected Machine Tool Cutting Setters, Operators, and Related Workers, Metal and Plastic	20	.26	na	na
Punching Machine Setters and Setup Operators, Metal and Plastic	20	.26	24	19
Other Selected Machine Forming Setters, Operators, and Related Workers, Metal and Plastic	60	.79	na	na
Numerical Control Machine Tool Operators and Tenders, Metal and Plastic	80	1.06	39	13
Combination Machine Tool Setters and Setup Operators, Metal and Plastic	50	.66	0	9
Other Numerical and Combination Machine Tool Setters, Operators, and Related Workers, Metal and Plastic	20	.26	na	na
Welding Machine Setters and Setup Operators	30	.40	14	13
Soldering and Brazing Machine Setters and Setup Operators	20	.26	18	13
Other Selected Metal Fabricating and Related Machine Setters, Operators, and Other Related Workers	100	1.32	na	na
Electrolytic Plating and Coating Machine Operators and Tenders, Metal and Plastic	30	.40	10	9
Other Selected Metal and Plastic Processing Machine Setters, Operators, and Related Workers	70	.93	na	na
All Other Metal and Plastic (Cut, Form, Fabricate, or Process) Machine Setters and Setup Operators	20	.26	na	na
All Other Metal and Plastic (Cut, Form, Fabricate, or Process) Machine Operators and Tenders	20	.26	na	na
Selected Printing, Binding, and Related Workers	10	.13	na	na
Electronic Semiconductor Processors	160	2.12	44	13
Coating, Painting, and Spraying Machine Setters and Setup Operators	30	.40	44	16
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	20	.26	0	9
All Other Machine Setters and Setup Operators	10	.13	na	na
All Other Machine Operators and Tenders	50	.66	na	na

SIC 36 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Electrical and Electronic Equipment Assemblers, Precision	380	5.03	25	19
All Other Precision Assemblers, Metal	20	.26	na	na
Electrical and Electronic Assemblers	2,080	27.51	7	53
Coil Winders, Tapers, and Finishers	130	1.72	0	16
Welders and Cutters	10	.13	0	13
Solderers and Brazers	10	.13	0	9
Grinding and Polishing Workers, Hand	10	.13	0	9
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	370	4.89	11	19
All Other Hand Workers	40	.53	na	na
Truck Drivers, Light, including Delivery and Route Workers	10	.13	25	13
All Other Motor Vehicle Operators	10	.13	na	na
Industrial Truck and Tractor Operators	10	.13	17	9
Freight, Stock, and Material Movers, Hand	30	.40	14	25
All Other Helpers, Laborers, and Material Movers, Hand	30	.40	na	na

TRANSPORTATION EQUIPMENT
SIC 37 1/
JUNE 1983

This major group includes establishments engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	8,790	100.00	na	na
Managerial and Administrative Occupations	470	5.35	na	na
Personnel, Training, and Labor Relations Managers	10	.11	0	6
Other Selected Staff and Administrative Specialty Managerial Occupations	260	2.96	na	na
Industrial Production Managers	20	.23	0	6
General Managers and Top Executives	150	1.71	3	66
All Other Managers and Administrators	30	.34	na	na
Professional, Paraprofessional, and Technical Occupations	1,590	18.09	na	na
Accountants and Auditors	10	.11	0	6
All Other Financial Specialists	10	.11	na	na
Purchasing Agents, except Wholesale, Retail, and Farm Products	100	1.14	2	30
Personnel, Training, Labor Relations Specialists, and Related Workers	10	.11	na	na
All Other Management Support Workers	910	10.35	na	na
Mechanical Engineers	30	.34	7	14
All Other Engineers	110	1.25	na	na
Drafters	240	2.73	1	12
All Other Engineering and Related Technicians and Technologists	30	.34	na	na
Physical Scientists	10	.11	na	na
Physical and Life Science Technicians and Technologists	30	.34	na	na
Computer Scientists and Related Workers	70	.80	na	na
Health Practitioners, Technologists, Technicians, and Related Health Occupations	10	.11	na	na
Selected Writers, Artists, Entertainers, Athletes, and Related Occupations	10	.11	na	na
All Other Professional, Paraprofessional, and Technical Workers	10	.11	na	na
Sales and Related Occupations	30	.34	na	na
Sales Representatives, except Scientific and Related Products or Services and Retail	20	.23	11	16
All Other Sales and Related Workers	10	.11	na	na
Clerical and Administrative Support Occupations	880	10.01	na	na
Secretaries	490	5.57	1	38
Bookkeeping, Accounting, and Auditing Clerks	60	.68	6	54
General Office Clerks	20	.23	9	22
Other Secretarial Related and General Office Workers	120	1.37	na	na
Electronic Data Processing and Other Office Machine Occupations	70	.80	na	na
Communications Equipment Operators	10	.11	0	4
Production, Planning, and Expediting Clerks	10	.11	13	16
Traffic, Shipping, and Receiving Clerks	30	.34	9	16
All Other Material Recording, Scheduling, and Distributing Workers	60	.68	na	na
All Other Clerical and Administrative Support Workers	10	.11	na	na
Service Occupations	150	1.71	na	na
Protective Service Occupations	80	.91	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	70	.80	2	22
Production, Construction, Operating, Maintenance, and Material Handling Occupations	5,670	64.51	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	50	.57	12	34
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	20	.23	0	8
Machinery Maintenance Workers	10	.11	11	8
Maintenance Repairers, General Utility	80	.91	4	18
Other Selected Machinery and Related Mechanics, Installers, and Repairers	250	2.84	na	na
Automotive Mechanics	10	.11	29	8

SIC 37 (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Electrical Installers and Repairers, Transportation Equipment	10	.11	25	8
Riggers	150	1.71	5	14
Carpenters	350	3.98	5	66
Electricians	600	6.83	0	18
Plumbers, Pipefitters, and Steamfitters	510	5.80	1	20
All Other Construction Trades Workers	430	4.89	na	na
Machinists	130	1.48	3	20
Shipfitters	400	4.55	2	16
Sheet Metal Workers	390	4.44	1	12
All Other Precision Metal Workers	90	1.02	na	na
Precision Wood Workers	10	.11	na	na
Selected Machine Tool Cutting Setters, Operators, and Related Workers, Metal and Plastic	100	1.14	na	na
Numerical and Combination Machine Tool Setters, Operators, and Related Workers, Metal and Plastic	10	.11	na	na
Welding Machine Setters and Setup Operators	10	.11	34	6
Selected Metal and Plastic Processing Machine Setters, Operators, and Related Workers	40	.46	na	na
Woodworking Machine Operators and Tenders, except Sawing	20	.23	35	6
Other Woodworking Machine Setters, Operators, and Other Related Workers	20	.23	na	na
Painters, Transportation Equipment	140	1.59	4	14
Coating, Painting, and Spraying Machine Setters and Setup Operators	40	.46	16	26
All Other Machine Operators and Tenders	10	.11	na	na
Precision Assemblers	580	6.60	na	na
Welders and Cutters	540	6.14	2	10
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	310	3.53	6	44
All Other Hand Workers	170	1.93	na	na
Plant and System Occupations	20	.23	na	na
Truck Drivers, Heavy or Tractor Trailer	10	.11	10	6
Industrial Truck and Tractor Operators	20	.23	14	8
All Other Material Moving Equipment Operators	70	.80	na	na
Freight, Stock, and Material Movers, Hand	20	.23	7	10
All Other Helpers, Laborers, and Material Movers, Hand	50	.57	na	na

1/ Excludes SIC 371 - Motor Vehicle and Motor Vehicle Equipment.

MEASURING, ANALYZING, AND CONTROLLING INSTRUMENTS; PHOTOGRAPHS, MEDICAL, AND OPTICAL GOODS; WATCHES AND CLOCKS
SIC 38
APRIL 1983

This major group of Instruments and Related Products includes establishments engaged in manufacturing instruments (including professional and scientific) for measuring, testing, analyzing, and controlling, and their associated sensors and accessories; optical instruments and lenses; surveying and drafting instruments; surgical, medical and dental instruments, equipment, and supplies; ophthalmic goods; photographic equipment and supplies; and watches and clocks.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	620	100.00	na	na
Managerial and Administrative Occupations	40	6.45	na	na
Selected Staff and Administrative Specialty Managerial Occupations	10	1.61	na	na
Industrial Production Managers	10	1.61	0	38
General Managers and Top Executives	20	3.23	18	75
Professional, Paraprofessional and Technical Occupations	30	4.84	na	na
Purchasing Agents, except Wholesale, Retail, and Farm Products	10	1.61	43	50
Engineering and Related Technicians and Technologists	10	1.61	na	na
Health Practitioners, Technologists, Technicians, and Related Health Occupations	10	1.61	na	na
Sales and Related Occupations	20	3.23	na	na
First Line Supervisors and Manager/Supervisors, Sales and Related Occupations	10	1.61	0	38
Merchandise, Products, and Other Sales and Sales Related Occupations	10	1.61	na	na
Clerical and Administrative Support Occupations	50	8.06	na	na
Secretaries	10	1.61	0	75
Other Secretarial Related and General Office Workers	10	1.61	na	na
Production, Planning, and Expediting Clerks	10	1.61	0	38
Stock Clerks, Stockroom, Warehouse, or Storage Yard	10	1.61	0	50
Traffic, Shipping, and Receiving Clerks	10	1.61	30	63
Service Occupations	10	1.61	na	na
Production, Construction, Operating, Maintenance, and Material Handling Occupations	470	75.81	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	10	1.61	3	50
Precision Inspectors, Testers, and Graders	20	3.23	0	50
Precision Metal Workers	30	4.84	na	na
Other Precision Workers	10	1.61	na	na
Selected Machine Forming Setters, Operators, and Related Workers, Metal and Plastic	20	3.23	na	na
Other Machine Setters, Setup Operators, Operators, and Tenders, except Metal and Plastic	10	1.61	na	na
Precision Assemblers	140	22.58	na	na
Electrical and Electronic Assemblers	90	14.52	1	50
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	60	9.68	3	38
Other Hand Workers, including Assemblers and Fabricators	70	11.29	na	na
Other Production, Construction, Operating, Maintenance, and Material Handling Occupations	10	1.61	na	na

MISCELLANEOUS MANUFACTURING INDUSTRIES
SIC 39
MAY 1983

This major group includes establishments primarily engaged in manufacturing products not classified in any other manufacturing major group. Industries in Maine in this group fall into the following categories: jewelry, silverware and plated ware; toys and amusement, sporting, and athletic goods; pens, pencils, and other office and artists' materials; costume novelties; and brooms and brushes, signs and advertising displays, hard surfaced floor coverings, and caskets.

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	740	100.00	na	na
Managerial and Administrative Occupations	50	6.76	na	na
General Managers and Top Executives	40	5.41	5	90
All Other Managers and Administrators	10	1.35	na	na
Professional, Paraprofessional, and Technical Occupations	20	2.70	na	na
Designers, except Interior Designers	10	1.35	8	75
All Other Professional, Paraprofessional, and Technical Workers	10	1.35	na	na
Sales and Related Occupations	10	1.35	na	na
Clerical and Administrative Support Occupations	70	9.46	na	na
Secretaries	10	1.35	13	43
Bookkeeping, Accounting, and Auditing Clerks	10	1.35	8	24
General Office Clerks	10	1.35	10	24
Other Secretarial Related and General Office Workers	20	2.70	na	na
Traffic, Shipping, and Receiving Clerks	10	1.35	4	24
All Other Material Recording, Scheduling, and Distributing Workers	10	1.35	na	na
Service Occupations	10	1.35	na	na
Janitors and Cleaners, except Maids and Housekeeping Cleaners	10	1.35	0	14
Production, Construction, Operting, Maintenance, and Material Handling Occupations	580	78.38	na	na
First Line Supervisors and Manager/Supervisors, Production and Operating Workers	30	4.05	4	48
Inspectors and Related Occupations	10	1.35	na	na
Maintenace Repairers, General Utility	20	2.70	5	24
Construction Trades and Extractive Occupations, except Material Moving	10	1.35	na	na
Precision Metal Workers	10	1.35	na	na
Precision Woodworkers	20	2.70	na	na
Machine Tool Cutting Operators and Tenders, Metal and Plastic	20	2.70	13	24
Other Selected Machine Tool Cutting Setters, Operators, and Related Workers, Metal and Plastic	10	1.35	na	na
Punching Machine Setters and Setup Operators, Metal and Plastic	40	5.41	17	14
Plastic Molding and Casting Machine Operators and Tenders	10	1.35	4	14
Woodworking Machine Setters, Operators, and Other Related Workers	70	9.46	na	na
Screen Printing Machine Setters and Setup Operators	10	1.35	8	19
Other Machine Setters, Setup Operators, Operators, and Tenders	10	1.35	na	na
Painting, Coating, and Decorating Workers, Hand	20	2.70	10	33
Grinding and Polishing Workers, Hand	20	2.70	8	14
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	150	20.27	1	24
Material Moving Equipment Operators	10	1.35	na	na
Machine Feeders and Offbearers	30	4.05	2	14
Freight, Stock, and Material Movers, Hand	30	4.05	3	14
Hand Packers and Packagers	30	4.05	1	19
All Other Helpers, Laborers, and Material Movers, Hand	20	2.70	na	na

NOTES ABOUT THE TABLES

Estimated Employment

If only one or two establishments reported a particular occupation, the employment for that occupation is not shown separately, but added to the appropriate "All Other" residual category. The "Total All Occupations" estimate for each industry was based on the second quarter 1983 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law.

Percent of Total Employment

The detail in the column entitled "% of Total Empl." may not add to totals due to rounding.

Relative Error

The relative error was computed only for specific occupations and not for residual categories nor for occupational groupings. If the relative error of an occupation exceeded 50 percent, and the response rate for the industry's total employment was 70 percent or better, the employment for that occupation was added to the residual category that was relevant to it. If the response rate of the industry was less than 70 percent, and the relative error of the occupation in that industry exceeded 35 percent, the employment for that occupation was not published separately, but was added to the residual category that was relevant to it. The relative error relates to the actual estimate before rounding. For an example of how the relative error is applied, see Accuracy of Occupational Employment Data in the METHODOLOGY.

Percent of Establishments Reporting the Occupation

The percent of establishments reporting each occupation could not be readily calcualted for groups of occupations, but only for specific occupations.

Abbreviations

na - not applicable
SIC - Standard Industrial Classification, as defined in the 1972 edition of the Standard Industrial Classfication Manual, prepared by the Executive Office of the President, Office of Management and Budget, Statistical Policy Division.
Empl. - Employment

Industry Coverage

The following industries were included in our survey this year, but are not represented in this publication because this would have violated the confidentiality rule under which the data was collected, or because the response rate was very low:

1. Paper and Allied Products, SIC 26
2. Petroleum Refining and Related Industries, SIC 29
3. Primary Metal Industries, SIC 33

METHODOLOGY

The Sample

The second quarter 1982 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law was used as the sampling frame for the Occupational Employment Statistics (OES) Program's survey of manufacturing industries. Every unit in these industries which employed 4 or more employees in June 1982 was selected for inclusion in this survey.

The universe for this survey consisted of 2,135 establishments employing a total of 111,400 persons. Of these, the survey included 1,331 units, or 62.3 percent of the universe. These sample units employed 109,766 workers, accounting for 98.5 percent of the total universe employment.

The Survey

The survey consisted of an initial mailing and two follow-up mailings to nonrespondents. In addition, many phone calls and a few personal visits were made to those employers whose responses were critical for valid estimates. Usable responses were received from 1,075 units, or 80.8 percent of the 1,331 sampled units. These usable responses represented 78,466 persons, or 71.5 percent of the total employment in the surveyed units.

The Screening, Editing, and Estimating Procedure

Each completed questionnaire returned was edited and screened both manually and mechanically for consistency and accuracy. The resulting "clean data file" served as the basis for calculating estimates. The "clean" employer questionnaires were separated by industry into seven size groups, the size being determined by the number of persons employed by each. The data was then tied into the universe employment for the report month of April, May, or June 1983 depending on the industry. These universe, or benchmark, figures came from the second quarter 1983 ES-202 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law. The total survey data by industry, by size class, was divided into the universe data for corresponding industry and size classes. This produced benchmark factors which were applied to the occupational data, thus accounting for any nonresponding units and any new units which emerged after the sample had been drawn. The resulting occupational estimates were summed across size classes to industry totals and rounded to the nearest ten. The percent of occupational distribution for each industry was then calculated.

Accuracy of Occupational Employment Data

There are two types of errors which affect the accuracy of the estimates published here--sampling and nonsampling errors. Sampling error is a specific arithmetic measure of the precision of an estimate. It is the difference between the estimate computed from the sample data and the result that would be obtained if the same methods were used to collect identical information from the entire population or universe. The relative error entries listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. In other words, relative error means

that the chances are two out of three (a 68 percent confidence level) that the results of a comparable full-scale data collection (the universe) using the same survey approach would not differ by more than the percent error shown. The chances are 19 out of 20 (a 95 percent confidence level) that the results would not differ by more than twice the percent error shown. For example, it is estimated in this report that there are 710 logging tractor operators in the lumber and wood products industry, with a 2 percent relative error. Thus, at a 68 percent confidence level, it is assured that the results of a full-scale count of logging tractor operators in this industry would not differ from this estimate by more than 14 workers (710 x .02). At a 95 percent confidence level, the universe count would not differ from the estimate by more than 4 percent of 710, or 28 workers.

Nonsampling errors result from external factors in a survey rather than from the fact that a sampling technique was used. Examples of these errors are: response errors, processing errors, computational errors, etc. The possibility of these errors was recognized from the start of the survey and every effort was made to avoid them.

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MAINE DEPARTMENT OF
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20 Union Street – Augusta, Maine 04330

BUREAU OF EMPLOYMENT SECURITY
Division of Economic Analysis and Research

MAINE OCCUPATIONAL STAFFING PATTERN

For

Hospitals

Data for April 1983

Labor Market Information Services

MAINE OCCUPATIONAL STAFFING PATTERN

FOR

HOSPITALS

APRIL 1983

This labor market information is developed through a cooperative program with the U.S. Bureau of Labor Statistics

DIVISION OF ECONOMIC ANALYSIS AND RESEARCH
Raynold A. Fongemie, Director

Occupational Outlook and Job Information Section, Ronald R. Leonard, Chief

ISSUED MARCH 1985

AUGUSTA, MAINE

PREFACE

We wish to express our thanks to all the hospitals which supplied the necessary occupational employment data on which the estimates presented herein are based, and to the Maine Department of Personnel for making their files available for this purpose. This publication would not have been possible without their cooperation.

We also wish to extend our thanks to the U.S. Department of Labor, both in Washington, D.C. and the regional level in Boston, Massachusetts, for their assistance in this federal-state cooperative effort.

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INTRODUCTION

This publication is one of a continuing number of reports covering occupational employment for selected industries in Maine. The information in these reports relates to part of a comprehensive "labor market and occupational supply and demand information system" which is mandated by the Job Training Partnership Act of 1982. This federal legislation, coupled with the rapidly expanding public awareness of the need for more vocational training, has resulted in an unparalleled demand for current employment data and projections of future employment requirements by occupation.

The Occupational Employment Statistics (OES) Program is mandated as the system which supplies the occupational data leading to an "Occupational Supply and Demand Information System." This program is a federal-state endeavor involving many state employment security agencies throughout the nation, in conjunction with the U.S. Bureau of Labor Statistics. This OES program consists of three distinct, yet integral components: survey operations, industry-occupation matrices, and projections.

The first part of the OES program consists primarily of collecting occupational employment data by industry through a survey questionnaire mailed to a sample of establishments throughout the State. The sample data received is expanded, using a system of weights and benchmark factors, to produce statewide staffing patterns for the industry. These staffing patterns can then be applied to current or projected estimates of industrial employment to produce estimates of employment by occupation for the State or substate area.

This publication, a direct result of the survey phase of the OES program, contains the staffing pattern for hospitals. The actual employment data was collected for the week of the 12th of April 1983.

Other booklets have already been published covering nearly all wage and salary workers in Maine. Approximately one-third of the State's industries will be surveyed each year, so that the entire economy will be covered every three years. Using this cycle, employers are asked to provide occupational data only once every three years. This ensures that no part of the data is over three years old, and that significant changes in the staffing patterns of industries can be identified early, as the trend develops.

The information obtained from these surveys is used in the second phase of the OES program, constructing industry-occupation matrices covering all sectors of our economy. These matrices, in turn, provide the data base used to project occupational requirements and is one of the basic ingredients of the "Comprehensive Manpower Information System."

Hospitals

Private, state, and municipal hospitals are all included in this survey. The only exclusion is the U.S. Veterans Administration Hospital at Togus.

There were 21,350 workers employed in these hospitals in April 1983. This denotes a 6.4 percent increase of employment since the previous survey in April of 1980. Although there was employment reported in 138 occupations, over one-half of the total employment, 54 percent, is concentrated in just eight occupations. They are as follows:

Occupational Title	Employment	Percent of Total Employment
Registered Nurses	4,910	23.00%
Licensed Practical Nurses	1,910	8.95
Nursing Aides, Orderlies, and Attendants	1,600	7.49
Maids and Housekeeping Cleaners	960	4.50
Secretaries, including Medical	930	4.36
Medical and Clinical Laboratory Technologists	490	2.30
Food Preparation Workers	420	1.97
Psychiatric Aides	400	1.87
TOTAL	11,620	54.43

Each of the following thirteen occupations were reported by over three quarters of all responding units:

Occupational Title	Percent of usable units reporting the occupation
Licensed Practical Nurses	100%
Registered Nurses	100
Maids and Housekeeping Cleaners	95
Nursing Aides, Orderlies, and Attendants	95
Cooks, Institution or Cafeteria	93
General Managers and Top Executives	93
Maintenance Repairers, General Utility	88
Medical and Clinical Laboratory Technicians	84
Physical Therapists	84
Switchboard Operators	81
Food Preparation Workers	79
Pharmacists	79
Radiologic Technicians	77

HOSPITALS
April 1983

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
TOTAL ALL OCCUPATIONS	21,350	100.00	na	na
Managerial and Administrative Occupations	970	4.54	na	na
Financial Managers	50	.23	3	70
Personnel, Training, and Labor Relations Managers	40	.19	3	70
Purchasing Managers	40	.19	4	67
Marketing, Advertising, and Public Relations Managers	30	.14	5	42
Administrative Services Managers	60	.28	15	19
Medicine and Health Services Managers	290	1.36	8	79
Food Service and Lodging Managers	40	.19	4	67
General Managers and Top Executives	160	.75	10	93
All Other Managers and Administrators	260	1.22	na	na
Professional, Paraprofessional and Technical Occupations	11,030	51.66	na	na
Accountants and Auditors	50	.23	5	51
Budget Analysts	20	.09	5	26
All Other Financial Specialists	20	.09	13	21
Purchasing Agents, except Wholesale, Retail, and Farm Products	20	.09	6	40
Personnel, Training, and Labor Relations Specialists	30	.14	4	37
Compliance Officers and Enforcement Inspectors, except Construction	10	.05	12	9
All Other Management Support Workers	50	.23	7	23
Industrial Engineers, except Safety	10	.05	8	14
Mechanical Engineers	20	.09	5	16
All Other Engineers	30	.14	na	na
Engineering and Related Technicians and Technologists	10	.05	na	na
Biological Scientists	10	.05	18	7
Medical Scientists	60	.28	21	16
All Other Life Scientists	10	.05	na	na
Physical and Life Science Technicians and Technologists	40	.19	na	na
Systems Analysts, Electronic Data Processing	10	.05	15	9
Computer Programmers	30	.14	7	35
Computer Programmer Aides	40	.19	6	21
Mathematical Scientists and Related Workers	10	.05	na	na
Psychologists	30	.14	3	14
Social Workers, Medical and Psychiatric	280	1.31	2	72
Social Workers, except Medical and Psychiatric	10	.05	11	21
Social Service Technicians	10	.05	11	21
Clergy	20	.09	5	30
Nursing Instructors	100	.47	8	42

Hospitals (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Teachers and Instructors, Vocational Education and Training	40	.19	15	12
All Other Teachers and Instructors	40	.19	na	na
Librarians, Professional	30	.14	5	40
Technical Assistants, Library	10	.05	15	9
Physicians and Surgeons	290	1.36	11	49
All Other Health Diagnosing and Treating Practitioners	10	.05	11	12
Respiratory Therapists	250	1.17	2	63
Occupational Therapists	60	.28	4	44
Physical Therapists	150	.70	3	84
Speech Pathologists and Audiologists	20	.09	13	14
Recreational Therapists	20	.09	7	14
Registered Nurses	4,910	23.00	1	100
Licensed Practical Nurses	1,910	8.95	1	100
Emergency Medical Technicians	70	.33	18	19
Physician's Assistants	60	.28	8	37
Pharmacists	110	.52	2	79
Dietitians and Nutritionists	60	.28	4	65
Dietetic Technicians	90	.42	4	56
Medical and Clinical Laboratory Technologists	490	2.30	2	72
Medical and Clinical Laboratory Technicians	360	1.69	4	84
Medical Records Technicians and Technologists	110	.52	6	74
Nuclear Medicine Technologists	40	.19	4	47
Radiologic Technologists	180	.84	6	47
Radiologic Technicians	250	1.17	5	77
Electroencephalograph Technicians and Technologists	30	.14	7	28
Electrocardiograph Technicians and Technologists	80	.37	3	56
Surgical Technicians	160	.75	3	67
All Other Health Professionals, Paraprofessionals, and Technicians	220	1.03	na	na
Public Relations Specialists and Publicity Writers	20	.09	7	28
Photographers	10	.05	6	14
All Other Professional, Paraprofessional, and Technical Workers	20	.09	na	na
Sales and Related Occupations	70	.33	na	na
Cashiers	70	.33	6	53
Clerical and Administrative Support Occupations	3,120	14.61	na	na
First Line Supervisors and Manager/Supervisors, Clerical and Administrative Support Occupations	160	.75	3	70
Library Assistants and Bookmobile Drivers	20	.09	7	19
Medical Secretaries	300	1.41	6	70
All Other Secretaries	630	2.95	5	67

Hospitals (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Stenographers	50	.23	9	14
Receptionists and Information Clerks	200	.94	6	60
Typists, except Word Processing Equipment	170	.80	4	65
Typists, Word Processing Equipment	20	.09	19	12
Personnel Clerks, except Payroll and Time-keeping	30	.14	5	37
File Clerks	70	.33	6	47
Order Clerks, Materials, Merchandise, and Service	20	.09	9	33
Procurement Clerks	30	.14	9	42
Statistical Clerks	40	.19	9	23
Interviewing Clerks, except Personnel and Social Welfare	160	.75	9	47
Bookkeeping, Accounting, and Auditing Clerks	100	.47	4	56
Payroll and Timekeeping Clerks	40	.19	4	56
Billing, Cost, and Rate Clerks	280	1.31	3	74
General Office Clerks	200	.94	6	51
Billing, Posting, and Calculating Machine Operators	20	.09	13	14
Computer Operators, except Peripheral Equipment	50	.23	6	40
Data Entry Keyers, except Composing	50	.23	6	35
Switchboard Operators	240	1.12	3	81
Stock Clerks, Stockroom, Warehouse, or Storage Yard	70	.33	3	58
Traffic, Shipping, and Receiving Clerks	20	.09	12	16
All Other Material Recording, Scheduling, and Distributing Workers	20	.09	15	14
All Other Clerical and Administrative Support Workers	130	.61	na	na
Service Occupations	5,350	25.06	na	na
Housekeepers	210	.98	7	72
All Other Service Supervisors and Manager/ Supervisors	90	.42	8	44
Guards and Watch Guards	70	.33	8	26
Food Servers, Outside	340	1.59	5	49
Dining Room and Cafeteria Attendants, and Bartender Helpers	70	.33	8	30
Counter Attendants, Lunchroom, Coffee Shop, or Cafeteria	70	.33	8	26
Bakers, Bread and Pastry	30	.14	9	33
Cooks, Institution or Cafeteria	190	.89	3	93
Cooks, Short Order	10	.05	18	9
Food Preparation Workers	420	1.97	6	79
All Other Food Service Workers	160	.75	7	35
Medical Assistants	20	.09	13	12
Nursing Aides, Orderlies, and Attendants	1,600	7.49	2	95
Psychiatric Aides	400	1.87	1	16

Hospitals (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Physical and Corrective Therapy Assistants and Aides	50	.23	4	56
Occupational Therapy Assistants and Aides	30	.14	4	21
Pharmacy Assistants	140	.66	4	67
All Other Health Service Workers	240	1.12	na	na
Maids and Housekeeping Cleaners	960	4.50	2	95
Janitors and Cleaners, except Maids and Housekeeping Cleaners	210	.98	4	60
All Other Cleaning and Building Service Workers, except Private Households	10	.05	na	na
Selected Personal Service Occupations	10	.05	na	na
All Other Service Workers	20	.09	na	na
Agricultural, Forestry, Fishing, and Related Occupations	30	.14	na	na
Gardeners and Groundskeepers, except Farm	30	.14	7	37
Production, Construction, Operating, Maintenance, and Material Handling Occupations	780	3.65	na	na
First Line Supervisors and Manager/Supervisors, Mechanics, Installers, and Repairers	20	.09	7	23
All Other First Line Supervisors and Manager/Supervisors, Production, Construction, Maintenance, and Related	20	.09	na	na
Maintenance Repairers, General Utility	200	.94	4	88
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	10	.05	4	16
Electromedical and Biomedical Equipment Repairers	30	.14	5	23
Menders, Garments, Linens, and Related	10	.05	13	14
All Other Mechanics, Installers, and Repairers	20	.09	14	12
Carpenters	40	.19	4	40
Electricians	30	.14	3	44
Painters and Paperhangers, Construction and Maintenance	30	.14	5	35
Plumbers, Pipefitters, and Steamfitters	10	.05	9	19
All Other Construction Trades Workers	10	.05	na	na
Precision Production Occupations	10	.05	na	na
Sewing Machine Operators, Nongarment	10	.05	9	16
Laundry and Drycleaning Machine Operators and Tenders, except Pressing	150	.70	5	51
Pressing Machine Operators and Tenders, Textile, Garment and Related Materials	30	.14	10	70
Boiler Operators and Tenders, Low Pressure	50	.23	7	33
Stationary Engineers	10	.05	10	9

Hospitals (continued)

Occupation	Estimated Employment	% of Total Empl.	Relative Error (%)	% of Units Reporting the Occupation
Truck Drivers, Light, including Delivery and Route Workers	10	.05	11	14
All Other Motor Vehicle Operators	10	.05	26	5
All Other Transportation and Related Workers	10	.05	0	5
Helpers, Laborers, and Material Movers, Hand, excluding Agriculture and Forestry Laborers	60	.28	1	9

NOTES ABOUT THE TABLE

Estimated Employment

If only one or two establishments reported a particular occupation, the occupational estimate is not shown separately, but added to the appropriate "All Other" or residual category. The "TOTAL ALL OCCUPATIONS" estimate for each industry is based on a benchmark figure derived from the second quarter 1983 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law.

Percent of Total Employment

The detail in the column entitled "% of Total Empl." may not add to totals due to rounding.

Relative Error

The relative error was computed only for specific occupations and not for residual categories nor for occupational groupings. If the relative error of an occupation exceeded 50 percent, the employment for that occupation was added to the residual category that was relevant to it. The relative error relates to the actual estimate before rounding. For an example of how the relative error is applied, see Accuracy of Occupational Employment Data in the METHODOLOGY.

Percent of Establishments Reporting the Occupation

The percent of establishments reporting each occupation could not be readily calculated for groups of occupations, but only for specific occupations.

Abbreviations

na - not applicable
Empl. - Employment

METHODOLOGY

The Sample

The June 1982 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law was used as the sampling frame for the Occupational Employment Statistics (OES) Program's survey of hospitals. Except for the U.S. Veterans Administration Hospital at Togus, a federal hospital which was included in the survey of federal government, all hospitals employing more than three workers were included in this survey. This totaled 52 units employing a total of 21,338 employees.

The Survey

The survey consisted of an initial mailing and two follow-up mailings to nonrespondents. In addition, phone calls and personal visits were made to those employers whose responses were critical for valid estimates. Data for the state hospitals was taken from the "employee file" maintained by the State Department of Personnel. Usable responses were received from 43 units, or 82.7 percent of the total number of hospitals included in this survey. These responses represented 93.3 percent of the total employment in hospitals, or 19,917 workers.

The Screening, Editing, and Estimating Procedures

Each completed questionnaire returned was edited and screened both manually and mechanically for consistency and accuracy. The resulting "clean data file" served as the basis for calculating estimates. The "clean" employer questionnaires were separated into seven size groups, the size being determined by the number of persons employed by each. The data was then tied into the universe employment for the report month of April 1983. These universe, or benchmark, figures came from the second quarter 1983 ES-202 report of Employment, Wages, and Contributions covered by the Maine Employment Security Law. The total survey data by size class was divided into the universe data for corresponding size classes. This produced benchmark factors which were applied to the occupational data, thus accounting for any nonresponding units, and any units not included in the sample. The occupational estimates were summed across size classes to the industry total and rounded to the nearest ten. The percent of occupational distribution was then calculated.

Accuracy of Occupational Employment Data

There are two types of errors which affect the accuracy of the estimates published here--sampling and nonsampling errors. Sampling error is a specific arithmetic measure of the precision of an estimate. It is the difference between the estimate computed from the sample data and the result that would be obtained if the same methods were used to collect identical information from the entire population or universe with no nonresponse. The relative error entries listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. In other words, relative error means that the chances are two out of three (a 68 percent confidence level) that the results of a comparable full-scale data

collection (the universe) with 100 percent response, using the same survey approach would not differ by more than the percent error shown. The chances are 19 out of 20 (a 95 percent confidence level) that the results would not differ by more than twice the percent error shown. For example, it is estimated in this report that there are 250 respiratory therapists employed in hospitals with a 2 percent relative error. Thus, at a 68 percent confidence level, it is assured that the results of a full-scale count of respiratory therapists in this industry would not differ from this estimate by more than 5 workers (250 x .02). At a 95 percent confidence level, the universe count would not differ from the estimate by more than 4 percent of 250, or 10 workers.

The nonsampling error results from external factors in a survey rather than from the fact that a sampling technique was used. Examples of these errors are: response errors, processing errors, computational errors, etc. The possibility of these errors was recognized from the start of the survey and every effort was made to avoid them.